DeFi Education Fund

June 12, 2023

Via Electronic Mail: rule-comments@sec.gov

Vanessa A. Countryman
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Re: Supplemental Information and Reopening of Comment Period for Amendments Regarding the Definition of "Exchange"; File No. S7-02-22

Dear Ms. Countryman:

The DeFi Education Fund ("**DEF**")[1] commends the Securities and Exchange Commission's ("**SEC**" or "**Commission**") decision to solicit additional comments concerning its proposal to amend Rule 3b-16 and its regulatory framework governing alternative trading systems ("**ATS**") (the proposing and reopening releases collectively, "**Proposal**").[2] However, we continue to have significant concerns regarding the Commission's broad approach to decentralized finance ("**DeFi**") and crypto asset technologies—including a number of specific and grave worries about both the lawfulness and prudence of the Proposal.

Most fundamentally, the Proposal demonstrates that the Commission has not made a serious and thoughtful effort to clearly and appropriately assess the scope of

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1 DEF is a nonpartisan advocacy group based in the United States with a mission to educate policymakers about the benefits of decentralized finance and to achieve regulatory clarity for the DeFi ecosystem.

2 Amendments Regarding the Definition of ''Exchange'' and Alternative Trading Systems (ATSs) That Trade U.S. Treasury and Agency Securities, National Market System (NMS) Stocks, and Other Securities, 87 Fed. Reg. 15496 (proposed Mar. 18, 2022); Supplemental Information and Reopening of Comment Period for Amendments Regarding the Definition of ''Exchange", 88 Fed. Reg. 29448 (May 5, 2023) [hereinafter Reopening Release].

its own jurisdiction over DeFi and crypto assets, nor has it crafted (or attempted to craft) a workable regulatory regime consistent with its statutory mandate and authority. Instead—like many of the Commission's other activities regarding crypto assets—the Proposal represents a slapdash and legally troublesome attempt to shoehorn the novel technologies in the crypto asset and DeFi spaces into antiquated and ill-fitting regulatory regimes. The result is a proposed approach that entirely fails to address or consider the novel functionalities and innovative features and characteristics of DeFi, and instead inexpertly subjects them to regulatory schemes designed for exchanges and trading platforms for the trading of stocks, bonds and other traditional securities instruments.

Many of the problems with the Proposal are traceable to the original sin of the Commission's attempts to regulate crypto assets: the agency's failure to clearly, consistently or lawfully address the fundamental question of which crypto assets are securities. The actions and words of the Commission and agency personnel have created great confusion. As recently as 2019, the Commission published guidance indicating that the question of whether a crypto asset is a security must be evaluated based on an individualized and fact-based analysis under Supreme Court precedent.[3] But in the past two years, Chair Gensler has adopted a fundamentally different approach, broadly and programmatically claiming that "the vast majority [of crypto assets] are securities"[4] and that "pretty much every sort of crypto [asset] . . . 'other than bitcoin'" should be regarded as a security.[5]

These foundational concerns color our specific concerns about the Proposal: that it exceeds the scope of the Securities Exchange Act of 1934 ("**Exchange Act**") and the SEC's authority under that law, and that the Commission is promulgating it in an arbitrary and illogical manner without regard to procedural requirements or to the central problems and costs implicated by the Proposal.

In addition, the Proposal is striking for its incongruity with the Commission's historical practice of recognizing innovation in the context of its exchange and ATS regulatory frameworks. In the late 1990s, the Commission developed the ATS

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3 SEC, Framework for "Investment Contract" Analysis of Digital Assets (Apr. 3, 2019), *available at* https://www.sec.gov/files/dlt-framework.pdf.

4 Gary Gensler, Chair of the SEC, Kennedy and Crypto (Sept. 8, 2022), *available at* https://www.sec.gov/news/speech/gensler-sec-speaks-090822.

5 Ankush Khardori, Can Gary Gensler Survive Crypto Winter? D.C.'s Top Financial Cop on Bankman-Fried Blowback, N.Y. Mag. (Feb. 23, 2023), *available at* https://nymag.com/intelligencer/2023/02/gary-gensler-on-meeting-with-sbf-and-his-crypto-crackdown.html.

regime specifically as a regulatory *alternative to traditional stock exchange regulation*, in order to take into account the unique features and functionality of emerging technologies. The Commission took these prudent steps in *direct response to technological developments and innovations* in how market participants were transacting (e.g., through automated trading facilities such as electronic communication networks).

In its 1998 Regulation ATS Adopting Release, the Commission explained:

> "[T]he Commission has undertaken a reevaluation of its regulatory framework for markets because of substantial changes in the way securities are traded. Market participants have incorporated technology into their businesses to provide investors with an increasing array of services, and to furnish these services more efficiently, and often at lower prices. The *current regulatory framework, however, designed more than six decades ago, did not envision many of these trading and business functions*."[6]

Rather than emulating the thoughtful and constructive approach it took in the late 1990s and acknowledging that the exchange and ATS regulatory frameworks were developed decades ago—when the agency did "not envision" many of the "trading and business functions" that crypto assets and DeFi present—the Commission's Proposal forges ahead by applying a regulatory framework that was developed for a different time and different technology.[7] In a January 2022 speech, Chair Gensler discussed the importance of regulators' and other policymakers' continually assessing and amending regulatory frameworks as technologies and business practices evolve—"'that no regulation can be static in a dynamic society.'"[8] Disappointingly, the Commission's Proposal flatly fails to heed this guidance—instead, it attempts to force a square technological peg into a round regulatory hole.

Underscoring the real-world stakes of the Commission's ill-considered regulatory policymaking, the Proposal would operate as a blanket de facto banishment of

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6 Regulation of Exchanges and Alternative Trading Systems, 63 Fed. Reg. 70844, 70845 (Dec. 22, 1998) (emphasis added).

7 *Id.*

8 Gary Gensler, Chair of the SEC, Prepared Remarks: Dynamic Regulation for a Dynamic Society Before the Exchequer Club of Washington, D.C. (Jan. 19, 2022), *available at* https://www.sec.gov/news/speech/gensler-dynamic-regulation-20220119 (quoting SEC, Report of Special Study of Securities Markets of the Securities and Exchange Commission (1963), *available at* https://www.sechistorical.org/collection/papers/1960/1963_SSMkt_Chapter_01_1.pdf).

DeFi from the United States. Practically and technologically speaking, it would be impossible for many DeFi protocols to comply with the Proposal, giving many protocol development companies no choice but to either shutter their operations or move offshore. This will lead to Americans either finding themselves unable to access certain protocols or being forced to assess whether they can or should risk accessing protocols built and developed outside of the United States. As we explained in our April 18, 2022 and June 13, 2022 comment letters responding to the initial proposing release,[9] the result would be to entirely and needlessly forfeit the United States' competitive advantage in the development of these innovative technologies and markets, all without legislative consideration. We have attached our prior comment letters here, and incorporate by reference the various objections and concerns we raised in them.

Beyond reiterating the many legal and policy concerns expressed in our prior letters—and the grave stakes for investors, companies and developers committed to the DeFi and crypto asset industries in the United States—we write today to underscore two central legal deficiencies with the Proposal:

First, the Proposal improperly reads and misapplies the Exchange Act and exceeds the SEC's statutory authority and mandate under the Act.

Second, the Commission has flatly failed to comply with numerous procedural and statutory rulemaking requirements.

I. The Proposal misconstrues the plain text of the Exchange Act, resulting in a proposed rule that exceeds the Commission's statutory authority and mandate.

The Proposal is legally flawed because it exceeds the SEC's authority under the Exchange Act, twisting the statutory definition of an "exchange" beyond both recognition and reason.[10] As the plain language of the statute makes readily apparent,

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9 *See* Letter from Miller Whitehouse-Levine, Policy Director, DEF, to Vanessa A. Countryman, Secretary of the SEC (Apr. 18, 2022), *available at* https://www.sec.gov/comments/s7-02-22/s70222-20123960-280119.pdf [hereinafter April 2022 DEF Letter]; Letter from Jake Chervinsky, Head of Policy, Blockchain Association and Miller Whitehouse-Levine, Policy Director, DEF, to Vanessa A. Countryman, Secretary of the SEC (June 13, 2022), *available at* https://www.sec.gov/comments/s7-02-22/s70222-20131087-301122.pdf.

10 For reasons explained below, the text of the Exchange Act clearly forecloses the Proposal. But even if some ambiguity exists, for various reasons, including the major questions doctrine discussed below, the Commission's interpretation should not be entitled to any sort of deference. *Cf. Util. Air Regul. Grp. v. Envtl. Prot. Agency*, 573 U.S. 302, 324 (2014). And even if the Commission's interpretation were evaluated under a *Chevron* framework, as explained below, it would still have to be rejected because it is unreasonable, illogical, and beyond the bounds of

DeFi protocols are not "exchanges" under the Exchange Act and intuitively possess none of the defining hallmarks of stock exchanges—and the SEC's misguided attempts to suggest otherwise underscore the many basic textual and logical problems with the Commission's proposed interpretation. In order to reach the conclusion that DeFi protocols can be classified as exchanges, the Commission proposes to make several definitional and interpretive changes to Rule 3b-16's definition of an "exchange"—each of which flies in the face of the statutory text and results in an over-broad and unrecognizable universe of regulated entities.

First, the Commission proposes to broaden the definition of "exchange"[11] to include entities that "make[] available" methods for trade execution or communications—rather than just those which "use" such systems.[12] The reopening release explains that this change was "intended to make clear that, in the event that a party other than the organization, association, or group of persons performs a function of the exchange, the function performed by that party would still be captured."[13]

This flies in the face of the words of the statutory definition, which states that an "exchange" is "any *organization, association, or group of persons* . . . which constitutes, maintains, or provides a market place or facilities" of an exchange.[14] The statutory language defines an "exchange" with reference to discrete first-party entities—an "organization, association, or group of persons"—without reference to third parties. Yet, by its express own admission, the Commission is seeking to broaden its own regulatory definition in order to capture entirely distinct third-party entities beyond those contemplated by the statute.

Reading the organizational limit out of the definition results in an entirely different conception of an exchange. It is tantamount to changing the definition of a "baseball team" to include its fans—modifying the concept of a "team" from one

whatever ambiguities may lie in the Exchange Act. *See AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 387–97 (1999).

11 15 U.S.C. § 78c(a)(1) ("The term 'exchange' means any organization, association, or group of persons, whether incorporated or unincorporated, which constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood, and includes the market place and the market facilities maintained by such exchange.")

12 Reopening Release at 29458.

13 *Id*.

14 15 U.S.C. § 78c(a)(1) (emphasis added).

intuitively encompassing only the "organization, association, or group of persons" associated with the team entity itself, to one in which the team's fans and third-party sportscasters, which perform certain "function[s]" associated with putting on a game, join the roster. As this simple example elucidates, just a small change to the definitional language results in an entirely distinct definition which is irreconcilable with the statutory text.

Second, the Commission proposes to further broaden Section 3(a)(1)'s definition of the types of entities that can constitute an exchange by interpreting the statutory term "group of persons" to include groups that do not exercise active control over the facilities and functions associated with an exchange. In the reopening release, the Commission contends that a "group of persons" can exist whenever persons "act[] in concert" through even "informal" agreement with respect to exchange functions—even if none of them individually, or the group as a defined whole, exercises any "control" over exchange functions or facilities.[15] The breadth of this proposed interpretation is staggering: the Commission even suggests that *independent* software developers who receive compensation for publishing code used in exchange protocols might be considered exchange operators.[16] This too has the effect of fundamentally altering the statutory definition—and results in an almost incomprehensibly broad understanding of exchanges.

The proposed language runs head-long into the plain text of the Exchange Act, which defines an exchange as "any organization, association, or group of persons . . . which *constitutes, maintains, or provides* a market place or facilities" associated with an exchange.[17] "[C]onstitutes," "maintains," and "provides" are all action words that contemplate active involvement and control. Anticipating these objections, the Commission justifies its textual change in a footnote by referencing a recent decision from the U.S. Court of Appeals for the D.C. Circuit.[18] But it misrepresents the opinion. Rather than bless the Commission's statutory misunderstandings, the panel in that case limited its holding to "closely connected corporate affiliates" of active first-party entities and expressly declined to address whether the term "group of persons" could encompass

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15 Reopening Release at 29454.

16 *Id.* at 29456 n.78 ("If a software developer receives compensation for publishing, independently from an organization, code for a trading facility to match orders or a protocol for buyers and sellers to negotiate a trade, the software developer could be acting in concert with a group of persons to provide a market place or facilities for bringing together buyers and sellers.").

17 15 U.S.C. § 78c(a)(1) (emphasis added).

18 Reopening Release at 29454 n.65 (citing *Intercontinental Exch., Inc. v. SEC*, 23 F.4th 1013 (D.C. Cir. 2022)).

non-active participants.[19] Instead, the panel noted that "the outer boundary of the term 'group of persons' remains murky," emphasizing that "vigilance is necessary to ensure the term is not stretched too far."[20] The Commission's Proposal vigilantly stretches that murkiness.

The practical effect and intent of the expansive "group of persons" language is obvious: to capture every person or entity whose historic or present actions, even when acting independently and with no visibility or relationship with each other, in the statutory catch-all definition of a group of persons constituting an exchange. The breadth of this interpretation underscores the extent to which it is incompatible with the statute. Beyond DeFi, the Commission's proposal has no logical limit and would sweep third-party and utility service providers who contract with exchange providers into the exchange regulatory regime. For example, at the most basic level, under this approach an electricity company that supplies power to a trading platform could be deemed to be "acting in concert" with such trading platform and therefore deemed to be acting as part of the exchange.[21] Similarly, messaging platforms that provide communication infrastructure to exchanges could be caught up and classified as unregulated exchanges "acting in concert" with exchanges that are their customers.[22]

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19 *Intercontinental Exch., Inc.*, 23 F.4th at 1024 ("Whether two or more persons are or may be acting in concert is likely the key consideration. *These, however, are possibilities we need not confront in the present case*.") (emphasis added).

20 *Id*.

21 Although the Commission disavows that these types of entities would be covered because they "encompass purely administrative items," such a limited principle is self-serving and lacks any rooting in the statute, amounting to little more than an admission that the Proposal, as written, instantiates a breathtaking and unacceptably broad definition. *See* Reopening Release at 29455 n.69. But even adopting such a limitation, the Commission's interpretation would still be staggeringly over-broad, capturing various third-party contractors such as messaging portals and information or data providers with no exchange functionality.

22 Notably, when discussing compliance, the Commission appears to recognize the unworkable breadth of this interpretation—self-servingly, and without comment, narrowing the entities subject to compliance to only encompass "group[s] of persons" who are concentrated and exercise non-ancillary control, a set that is eerily similar to the narrower statutory definition that the Commission seeks to discard in the Proposal. *See, e.g.*, Reopening Release at 29455 (service provider who operates facilities for an exchange operator exempted from compliance obligations unless it "controls the market place or facilities"); *id*. at 29485 ("In such a case [involving a dispersed participants], the Commission believes that the entities responsible for compliance may find it necessary to form an organization or designate a member of the group of persons to be responsible for compliance . . . and that such an organization or member of the group of persons would be capable of collecting the information necessary to comply."). The Commission does not

Third, the Commission completely and inexplicably ignores Section 3(a)(1)'s clear link between the statutory definition of an "exchange" and "the functions commonly performed by a stock exchange as that term is generally understood." The existing statutory definition encompasses entities "which constitute[], maintain[], or provide[] a market place or facilities for bringing together purchasers and sellers of securities *or for otherwise* performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood, and includes the market place and the market facilities maintained by such exchange."[23] Read naturally, the reference to the common and generally understood functions of a stock exchange serve as a limiting and definitional tool for the broad and indefinite language regarding market places and facilities.

Yet, the Commission proposes a cramped reading of that language, contending that the word "or" makes this portion of the definition "disjunctive."[24] In order to do so, the Commission completely ignores the word "otherwise"—which clarifies that the subsequent text ("the functions commonly performed by a stock exchange as that term is generally understood") is intended to modify the preceding text ("organization, association, or group of persons . . . which constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities").[25] Or in simpler terms, the combined language clarifies that the market place or facilities constituted, maintained or provided by an exchange are the sorts and manner of those traditionally performed by a stock exchange as that term is generally understood.

The phrasing in the statutory definition of "exchange" serves a clear limiting purpose: to cabin the breadth of terms such as "market" or "facilities" to the intuitive concept of a stock exchange, which was, of course, the object of Congress's regulatory intent when it drafted the Exchange Act nearly ninety years ago. And, like the Commission's other mis-readings, this change would introduce almost unthinkable

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explain why the same Proposal would simultaneously define an "exchange" operator broadly enough to encompass non-active participants, while limiting compliance obligations to only active participants beyond averring that dispersed groups of persons cannot meaningfully comply with the national securities exchange or ATS regulatory regimes—a recognition which practically admits the obvious and unreasonable overbreadth of the Commission's interpretation of the statutory definition. *Cf. Util. Air Regul. Grp.*, 573 U.S. at 325–28 (rejecting an agency interpretation as unreasonable where, *inter alia*, the agency sought to mitigate the effects of its overbroad statutory interpretation by prudentially adopting a narrower set of entities to actually regulate).

23 15 U.S.C. § 78c(a)(1) (emphasis added).

24 Reopening Release at 29458.

25 *Id*.

breadth to the types of entities that might be treated as unregulated exchanges: discussion forum providers, industry conference hosts, chat providers, and even landlords—all of whom technically provide certain markets or facilities for exchange purposes, but obviously do not do so in the manner logically associated with the *operation* of a stock exchange.

As applied to DeFi specifically, the Commission's attempt to discard this phrasing only underscores the extent to which DeFi protocols possess none of the traditional methods or traits associated with stock exchanges. For instance, the key hallmarks of stock exchanges include: the existence of an exchange operator that includes a management team and performs a self-regulatory function, a rulebook that establishes exchange membership standards, and participation in the national market system for securities. None of these is present in DeFi protocols such as automated market makers ("**AMM**"), whose operations are dictated by the immutable operation of mathematical equations.

II. The major questions doctrine forecloses the Commission's attempt to expand its power beyond its Congressionally-authorized mandate.

In addition to proposing language that is internally inconsistent and expands the definition of an "exchange" to incoherent depths, the Commission vastly exceeds its statutory mandate by proposing to regulate an industry that it has not received any Congressional authority to regulate and deciding unresolved major questions about asset classification. The "major questions doctrine" does not permit such overreach. As the Supreme Court has explained, whenever an agency "claims to discover in a long-extant statute an unheralded power to regulate a significant portion of the American economy," such authority must be supported by exceptionally "clear congressional authorization."[26] Even if the Commission could invent some ambiguity in the statute to support a "colorable" or "plausible" claim that DeFi protocols are "exchanges," bringing them within the Commission's jurisdiction, that interpretation would still be foreclosed by the major questions doctrine.[27]

To reach the conclusion that it can regulate DeFi, the SEC has exploited purported ambiguities in the statute in order to bend the definition of an "exchange" system to the point of breaking.[28] In doing so, the Commission implies that it possesses

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[26] *Util. Air Regul. Grp.*, 573 U.S. at 324 (internal quotations omitted); *see also West Virginia v. Envtl. Prot. Agency*, 142 S. Ct. 2587, 2607–09 (2022).

[27] *West Virginia*, 142 S. Ct. at 2609.

[28] *See supra* Section I.

latent yet novel regulatory authority over a range of traditionally non-exchange ancillary trading services. The upshot of this retroactive reinterpretation of the Exchange Act is to bring a nascent and innovative industry under a Depression-era regulatory regime that could never have contemplated this technology and its nuances.

Such power to "substantially restructure" a massive portion of the American economy requires "clear congressional authorization."[29] The SEC simply does not have it. *At best*, the vague words and creative interpretations cited by the Commission provide a "colorable" textual basis for the Proposal. But, under the major questions doctrine, the exploitation of statutory ambiguity is not enough to sustain agency action—only a "clear" mandate from Congress will do. A twisted reading of the oblique implications of a nearly ninety-year-old definitions section is anything but a clear grant of regulatory authority.

Nor can it be denied that the regulation of DeFi is a "major" question. Although the Supreme Court has not delineated specific criteria to determine when an agency's assertion of regulatory authority over "a significant portion of the American economy" is sufficiently weighty to trigger the major questions doctrine,[30] the current scale and future potential significance of DeFi technology make it clear that the question of who regulates it, and how, fits within the doctrine's ambit. Still a novel technology and a fledgling industry, DeFi already facilitates more than $100 billion in annual volume of crypto asset trading and plays a critical role in the broader $1 trillion crypto assets ecosystem—meaning the industry's current scale is already in line with Supreme Court precedent applying the major questions doctrine.[31] Moreover, DeFi represents a transformative development for the financial industry and economy as a whole. DeFi ecosystems, and the blockchain technology they are built upon, are the first significant innovations that let parties transact in assets without a centralized intermediary, like a broker or bank. As a result, the long-term implications of DeFi technologies are poised to play an important role in the future of the financial markets and institutions.

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29 *West Virginia*, 142 S. Ct. at 2610, 2614.

30 *Id*. at 2608; *id*. at 2621 (Gorsuch, J., concurring) (collecting cases).

31 *Food and Drug Admin. v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 159 (2000). Although the Court has not delineated precise economic or financial criteria, it has applied the major questions doctrine in several cases involving $100–$200 billion in industry value or regulatory costs. *See, e.g.*, *West Virginia*, 142 S. Ct. at 2622 (Gorsuch, J., concurring) (regulation imposing over $200 billion in costs); *Util. Air Regul. Grp.,* 573 U.S. at 321–22 (regulation imposing around $150 billion in costs).

The question of how to regulate DeFi must be answered by the people's representatives in Congress[32]—which is actively debating issues related to crypto assets and DeFi as of this writing.[33] The major questions doctrine is "designed to protect the separation of powers and ensure that any new laws governing the lives of Americans are subject to the robust democratic processes the Constitution demands,"[34] by ensuring that agencies do not encroach upon legislative policymaking through statutory sleight of hand. In other words, the doctrine serves to prevent the Commission from doing what it is attempting to do with this Proposal, attempting to preempt Congress by shoehorning the regulation of DeFi into ill-fitting frameworks enacted nearly a century ago.

III. The Proposal fails to comport with the express procedural and substantive requirements of the Exchange Act and Regulatory Flexibility Act, and is arbitrary and capricious under the Administrative Procedure Act.

Even if the Proposal did not conflict with the Exchange Act, it would still be legally deficient since, now in two separate attempts at this proposed rulemaking, the Commission has failed to meet several statutory and regulatory rulemaking pre-conditions. Among other errors, the SEC does not adequately consider and explain how the Proposal is in the public interest, how it would promote the Exchange Act's guiding principles of efficiency, competition, and capital formation, and how it compares to significant regulatory alternatives. Congress imposed these statutory requirements concerning SEC rulemakings to help ensure that the Commission produces thoroughly considered rules that further the policies and interests of the Exchange Act—and the SEC's failure to comply with them only underscores the extent to which the Proposal is incompatible with the language and purpose of the Act.

Similarly, the Proposal is a classic case of unlawful arbitrary and capricious agency action under the Administrative Procedure Act ("**APA**"). First, the Commission's failure to comport with the statutory requirements of the Exchange Act, and to fully engage with and adequately consider the factors that Congress expressly required the

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32 *See West Virginia*, 142 S. Ct. at 2609 ("We presume that 'Congress intends to make major policy decisions itself, not leave those decisions to agencies.'").

33 *See, e.g.*, H. Comm. on Fin. Serv., 118th Cong., Discussion Draft, *available at* https://financialservices.house.gov/uploadedfiles/digital_002_xml.pdf (discussion draft proposing a statutory framework for crypto asset regulation by Reps. McHenry, Thompson, Hill, and Johnson).

34 *Nat'l Fed'n of Indep. Bus. v. Dep't of Labor*, 142 S. Ct. 661, 669 (2022) (Gorsuch, J., concurring); *see also id.* at 668 (major questions doctrine "ensures that the national government's power to make the laws that govern us remains where Article I of the Constitution says it belongs—with the people's elected representatives.").

agency to evaluate, renders the Proposal arbitrary and capricious and contrary to law per the APA.[35] And many of the myriad other errors and omissions in the Commission's reasoning—such as its misunderstanding of the basic architecture of blockchains, failure to fully or logically evaluate and weigh the costs and benefits of the Proposal, its inadequate consideration of reliance interests, and its failure to consider and compare against alternative regulatory approaches—also represent independent failures to comport with the foundational principles of reasoned agency decision-making that separately render the proposal arbitrary and capricious.[36]

The chilling effect on the DeFi industry is compounded by the Commission's enduring refusal to clearly identify which crypto assets are securities. In this Proposal, the SEC again dodges the question, obliquely and repeatedly noting that it "preliminarily believes that some amount" of the assets traded on DeFi protocols are securities.[37] Because the SEC has failed to provide clarity on that question—a necessary prerequisite for knowing if any specific DeFi protocol would be covered by the Proposal—the Proposal fails to provide sufficient notice to regulated entities, and would create yet another Kafkaesque environment of regulatory uncertainty for DeFi protocols. This is not only arbitrary and capricious, but further fails to comport with the provisions of the APA requiring fair notice to regulated parties.[38]

A. <u>The Commission has not met its burden under Exchange Act Section 3(f) to analyze whether, and ultimately demonstrate that, the proposed rule (1) is necessary or appropriate in the public interest and (2) promotes efficiency, competition, and capital formation.</u>

Section 3(f) of the Exchange Act requires that for rulemakings under the statute, the Commission "is required to consider or determine whether an action is necessary or appropriate in the public interest [and] shall also consider, in addition to the

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35 *See, e.g.*, *Bus. Roundtable v. SEC*, 647 F.3d 1144, 1148 (D.C. Cir. 2011) (SEC's "failure to 'apprise itself—and hence the public and the Congress'" of Exchange Act Section 3(f) statutory factors rendered SEC Rule "arbitrary and capricious and not in accordance with law") (quoting *Chamber of Commerce v. SEC*, 412 F.3d 133, 144 (D.C. Cir. 2005)).

36 *Cf.* 5 U.S.C. § 706; *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 46–57 (1983).

37 Reopening Release at 29469.

38 *See Christopher v. SmithKline Beecham Corp.*, 132 S. Ct. 2156, 2167 (2012) ("agencies should provide regulated parties 'fair warning of the conduct [a regulation] prohibits or requires.'") (quoting *Gates & Fox Co., Inc. v. Occupational Safety and Health Review Comm'n*, 790 F.2d 154, 156 (D.C. Cir. 1986)).

protection of investors, whether the action will promote efficiency, competition, and capital formation."[39] The SEC has completely failed to meet this express statutory burden, or to satisfy its "unique obligation to consider the effect of a new rule upon 'efficiency, competition, and capital formation.'"[40]

The Commission's analysis of the competitive effects of the Proposal are, at best, incomplete. As we explained in our initial comment letter,[41] it is simply not possible for most DeFi protocols to comply with the existing regulatory requirements imposed upon national exchanges and ATSs—most basically, because those regimes assume and mandate a degree of concentrated control that is incompatible with the structure and operation of DeFi.

For example, the rules for national exchanges and ATSs require that regulated entities be able to halt trading in circumstances of "extraordinary market activity" and discretionarily reject orders from entities that have not "compl[ied] with all regulatory requirements."[42] Each of these regulatory requirements contemplates a centralized and intermediated trading platform where someone is able to exercise active discretion, in real-time, over order flow and trade fulfillment; for example, to halt trading due to the anticipation of significant news or to allow investors the ability to assimilate released news. Most DeFi protocols cannot—consistent with their architecture—carry out these actions because there is no entity or person with regular discretion over the operation of the protocol, and the only rules and procedures that can be applied must be entered ex ante and programmatically.

Contrary to the SEC's misapprehensions, DeFi protocols do not have "operator[s who] control[] all aspects of the operation" of the protocols.[43] Unlike with a conventional exchange, once a set of immutable rules and functions has been coded into the smart contracts of a DeFi protocol, they operate completely autonomously. A smart contract is sophisticated, but in this regard it functions as a dumb pipe: it executes, without fail, the exact rules and programming set forth when the protocol was established. Of course, some protocol compliance requirements can be quantified or established via formula, and thus built into the function of a DeFi protocol. But many of

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39 15 U.S.C. § 78c(f).

40 *Bus. Roundtable*, 647 F.3d at 1148 (quoting 15 U.S.C. § 78c(f)).

41 *See, e.g.*, April 2022 DEF Letter at 10.

42 *See, e.g.*, 17 C.F.R. § 242.301(b)(1); 17 C.F.R. § 240.15c3-5(c)(2)(i); Financial Industry Regulatory Authority Rule 6120; Nasdaq Stock Market LLC, Rule 4120.

43 Reopening Release at 29473 n.229.

the specific requirements of Regulation ATS and the national exchange regime cannot be. For instance, it is impossible to define, in non-discretionary terms, what "extraordinary market activity" is sufficient for a smart contract to reliably halt trading in response to it, and permitting a party to exert control to action such discretion necessitates intermediation.

The upshot of this technological reality is that holding DeFi protocols to the requirements of the regulatory regimes governing national securities exchanges and ATSs would result in their de facto expatriation from the United States.[44] DeFi is rapidly gaining trading market share in crypto assets, especially after recent and high-profile fraud and compliance issues at leading centralized and intermediated non-U.S. crypto asset exchanges.[45] Its sudden absence from the market would represent a gargantuan shift in the competitive landscape for crypto asset transactions, and asset and commodity trading more broadly.

These impacts on competition and capital formation are precisely the types of effects that Section 3(f) says the SEC "shall consider." Yet, the SEC does not

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[44] This is largely because, as also explained further below, *see infra* III A–B, the reasoning underpinning the Commission's conclusion that DeFi protocols can feasibly comply with the national securities exchange and ATS regulatory regimes is entirely illogical and predicated upon basic misapprehensions about blockchain technology. For example, the Commission suggests that, in order to comply with exchange regulation, the validators or miners on a blockchain could simply "fork" the blockchain in order to censor or reverse transactions conducted on the blockchain. *See* Reopening Release at 29483. Such a scheme is technologically impossible and belies the fundamental architecture of public blockchain protocols, which are designed to ensure immutability of data and censorship resistance. Consider a few of the most basic problems (none of which the Commission acknowledges or discusses). First, in order to effectively "censor" a transaction, a validator/miner would need to access at least 51% of the network's stake/hashing power to be effective, which on the more popular blockchains would require real-time coordination with hundreds of thousands of dispersed parties. Even more basically, hard forks to reverse transactions would require updating a node's software, which cannot be done instantaneously—and thus cannot be accomplished within the timeframe that the securities laws require exchange operators to be able to act within. Moreover, validators/miners on a blockchain do not inspect the content of transactions, so it is entirely unclear how they would possibly be able to make fact-specific discretionary judgments whether particular transactions should be reversed or paused—and even if they could inspect the transactions, it is difficult to imagine that they would be able to answer certain requisite questions that the Commission itself cannot even reliably answer, including whether a crypto asset is a security. Finally and most fundamentally, forking cannot even possibly accomplish the Commission's objectives, since even when a blockchain is forked, the non-forked chain that remains is operable and represents the very transactions that the forking intended to disrupt.

[45] *See, e.g.*, Complaint, *SEC v. Bankman-Fried*, Civil Action No. 1:22-cv-10501 (S.D.N.Y. Dec. 13, 2022); Complaint, *SEC v. Binance Holdings Ltd. et al.*, Civil Action No. 1:23-cv-01599 (D.D.C. June 5, 2023).

analyze or even discuss these impacts in the Proposal, instead only offering a conclusory statement that compliance appears possible. This is a clear failure to comport with the statutory requirements of Section 3(f), and as the U.S. Court of Appeals for the D.C. Circuit has regularly emphasized specifically in the Section 3(f) context, the Commission's "failure to 'apprise itself—and hence the public and the Congress—of the economic consequences'" of the Proposal also renders "it arbitrary and capricious and not in accordance with law."[46]

More broadly, the grave consequences of the de facto banishment of DeFi from United States markets underscores the extent to which the SEC has failed to satisfy the rest of its burdens under Section 3(f): to demonstrate that the Proposal is "necessary or appropriate in the public interest" and "will promote efficiency, competition, and capital formation."[47] Subjecting a growing and novel technology to requirements with which it cannot technologically comply is manifestly contrary to the public policy interests of growth and innovation in the capital markets. Moreover, removing an entire type of new and fast-growing trading platforms from the market will necessarily result in less efficient and competitive markets, and will have consequences for investment and capital formation activities. These effects, of course, are most obviously observed vis-à-vis crypto asset and digital asset markets, but given the potential for DeFi technology to transform how value is transferred generally across asset classes, banishing them now also has significant consequences for other asset and trading markets. The SEC has not addressed these topics.

The Commission has also failed in other ways to sufficiently and logically establish the public interest appropriateness or necessity of the Proposal. Various courts have read similar requirements that rules be justified as "necessary" or "appropriate" to require a reasonable weighing of the relative costs and benefits of a proposed regulatory requirement.[48] For a laundry list of reasons too extensive to reproduce here—including, for instance, the infeasibility of DeFi protocol compliance with requirements that assume centralized and intermediated control, as well as myriad similar issues—the SEC's basic misunderstandings about the operation of DeFi result in a grave failure to adequately or

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46 *Bus. Roundtable*, 647 F.3d at 1148 (quoting *Chamber of Commerce*, 412 F.3d at 144).

47 15 U.S.C. § 78c(f).

48 *Bus. Roundtable*, 647 F.3d at 1149 (rule arbitrary and capricious where SEC "failed adequately to quantify the certain costs or to explain why those costs could not be quantified"); *see also Michigan v. Envtl. Prot. Agency*, 576 U.S. 743, 752–53 (2015).

completely assess the costs of the Proposal.[49] As if this were not deficiency enough, the Commission has also failed to even attempt to articulate how and why the specific regulatory obligations applicable to national securities exchanges and ATSs provide any investor or market benefit as applied to DeFi, which have fundamentally different architecture and operation. The result is a haphazard cost-benefit analysis that is incomplete and legally insufficient.

Moreover, the Commission's failure to consider any substantial regulatory alternatives—of which there are several, including those proposed by commenters in response to the SEC's original proposal—represents a distinct failure to comply with the Exchange Act and APA's mandate that agencies adequately consider available alternatives as a foundational part of explaining how their policy decisions are well reasoned and in the public and statutory interest.[50]

B. The Commission has not met its burden under Exchange Act Section 23(a)(2) to consider the Proposal's impacts on competition.

Similarly, Section 23(a)(2) of the Exchange Act requires that rulemakings under the Act "shall consider among other matters the impact any such rule or regulation would have on competition . . . and shall not adopt any such rule or regulation which would impose a burden on competition not necessary or appropriate in furtherance of the purposes of this title."[51] In order to ensure that the Commission fully considers the effects on competition, the Act imposes an additional requirement that any rulemaking

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49 For example, the Commission justifies its failure to consider various costs to crypto markets by contending that it is "impossible to determine the true market turnover for crypto assets, because, among other reasons, the crypto asset market reportedly is characterized by rampant wash trading." Reopening Release at 29470–71. This is blatantly illogical. Wash trading is infeasible on the largest type of DeFi protocol, AMMs, because there is no collaborator for the wash trader to control both sides of the trade for—which is why the sole source cited by the SEC for its wash trading assumptions related to DeFi did not assess AMMs. *See id*. at 29471 n.207. Similarly, the Commission contends that DeFi protocols can comply with intermediation requirements by simply having validators/miners "fork" blockchains. *See id*. at 29483. Even if this were technologically possible (which it is not, *see supra* note 44), it would entirely destroy the purpose and function of any forked blockchain—thus imposing massive costs not only on any DeFi protocol, but also every other entity reliant upon the same blockchain infrastructure. The SEC does not even mention, much less attempt to quantify, these costs.

50 *See Bus. Roundtable*, 647 F.3d at 1149; *see also Motor Vehicle Mfrs. Ass'n of U.S., Inc.*, 463 U.S. at 48–51; *Dept. of Homeland Sec. v. Regents of the Univ. of Cal.*, 140 S. Ct. 1891, 1913–15 (2020).

51 15 U.S.C. § 78w(a)(2).

"shall include . . . the reasons for . . . determin[ing] that any burden on competition . . . is necessary or appropriate in furtherance of the purposes of this chapter."[52]

As explained above, DeFi protocols cannot possibly comply with the regulatory regimes applicable to national securities exchanges and ATSs—and will be de facto banished from the United States by the Proposal, making the trading and crypto asset markets significantly less competitive. Yet, as explained above, the Commission has not even considered this impact—much less shown how the Proposal's purported benefits could possibly provide countervailing benefits justifying it as necessary or appropriate in light of these substantial impacts on the competitive landscape.

C. The Commission has failed to consider significant regulatory alternatives, as required by the Regulatory Flexibility Act.

The Commission also has not adequately considered reasonable, and less burdensome, regulatory alternatives as part of its analysis—nor its specific impacts on small entities. The Regulatory Flexibility Act ("**RFA**") expressly requires the Commission to undertake an Initial Regulatory Flexibility Analysis, including an examination of a proposed rule's impacts on small entities, unless "the [Commission] certifies that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[53] Evincing clear congressional concern about regulation stifling innovators and small businesses, a sufficient analysis under the RFA must, among other things, provide "a description of any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impacts of the proposed rule on small entities."[54]

According to the Commission, it has not conducted an Initial Regulatory Flexibility Analysis required by the statute because it "continues to certify that the proposed amendments would not, if adopted, have a significant economic impact on a substantial number of small entities."[55]

Nothing could be further from the truth. Most DeFi protocols, and developers of smart contracts, are paradigmatic "small entities": small groups of independent software developers and collectives who contribute to open-source

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[52] *Id.*

[53] 5 U.S.C. § 605(b).

[54] 5 U.S.C. § 603(c).

[55] Reopening Release at 29466 n.178; 5 U.S.C. § 605.

protocols and take little in outside funding. Nearly *every single DeFi or smart contract developer* is a small entity under the RFA. And because, as explained above, the Proposal will almost certainly make DeFi protocols per se illegal in the United States due to the inability to comply, it will create clear and "significant economic impact[s for] a substantial number of small entities." The Proposal's expansive re-definition of what constitutes an "exchange," and the significant compliance costs associated with national exchange and ATS regulation, will also undoubtedly chill independent software developers' publication of code related to disintermediated trading technology. These are precisely the types of small entity impacts that the RFA requires the Commission not only to discuss, but also to make efforts to avoid.

D. <u>The Proposal flies in the face of the Commission's own staff rulemaking guidance.</u>

Guidance published by the SEC's Office of General Counsel and the Division of Risk, Strategy, and Financial Innovation (the predecessor to the SEC's Division of Economic and Risk and Analysis) states that "[a]s a general matter, every economic analysis in SEC rulemakings should include" various elements including: "the definition of a baseline against which to measure the likely economic consequences of the proposed regulation;" "the identification of alternative regulatory approaches;" and "an evaluation of the benefits and costs—both quantitative and qualitative—of the proposed action and the main alternatives identified by the analysis."[56]

As explained above, the Proposal does not conform to these guidelines. The Proposal fails to identify alternative regulatory approaches, and does not offer a complete, cogent or defensible qualitative or quantitative cost-benefit analysis. Similarly, the Proposal does not establish a sufficient baseline against which to weigh the economic impacts of the Proposal, largely because—and co-extensive with its broader failure to consider competitive impacts—the Commission neither fully nor accurately considers the role of DeFi in the broader crypto asset market, and does not construct a workable model to evaluate the role or capabilities of competing platforms. For example, the Commission assumes that if DeFi ecosystems are unable to comply with requirements, and are therefore made per se illegal in the United States, their users will simply migrate to regulated exchanges and ATSs. However, partly because of the broader regulatory uncertainty surrounding the Commission's regulation of digital and crypto assets, no meaningful platforms exist in compliance with these regimes. Even if some centralized crypto asset trading platforms do come into compliance, it will likely be several years

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[56] Division of Risk, Strategy, and Financial Innovation and Office of the General Counsel, Current Guidance on Economic Analysis in SEC Rulemakings (Mar. 16, 2012), *available at* https://www.sec.gov/divisions/riskfin/rsfi_guidance_econ_analy_secrulemaking.pdf.

before they are able to provide enough liquidity and trade execution to possibly absorb the greater than $100 billion in annual volume done by DeFi protocols. The “baseline” assumed by the SEC—with centralized and intermediated crypto asset trading platforms—is entirely illusory and unsubstantiated.

* * *

We appreciate the opportunity to provide our comments to the Commission regarding the proposed amendments to Rule 3b-16, and we would be pleased to meet with the Commission or its staff to discuss our comments.

Respectfully submitted,

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June 13, 2022

Via Email: rule-comments@sec.gov

Vanessa A. Countryman
Secretary
U.S. Securities and Exchange Commission
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Re: Notice of Proposed Amendments to Exchange Act Rule 3b-16 Regarding the Definition of "Exchange"; Regulation ATS for ATSs That Trade US Government Securities, NMS Stocks, and Other Securities; Regulation SCI for ATSs That Trade US Treasury Securities and Agency Securities (Release No. 34-94868; File No. S7-02-22)

Dear Ms. Countryman:

The Blockchain Association[1] and the DeFi Education Fund[2] submit these additional comments in response to the Securities and Exchange Commission's ("**SEC**") notice of proposed rulemaking to amend the interpretation of the definition of "exchange" in Rule 3b-16 under the Securities Exchange Act of 1934 ("**Exchange Act**") and to make certain other amendments to

[1] The Blockchain Association is a nonprofit organization dedicated to improving the public policy environment for public blockchain networks so that they can develop and prosper in the United States. We endeavor to educate policymakers, courts, law enforcement, and the public about blockchain technology and the need for regulatory clarity to allow for a more secure, competitive, and innovative digital marketplace. The Association is comprised of over 80 industry leaders who are committed to responsibly developing and supporting public blockchain networks fueled by cryptocurrencies. Our diverse membership reflects the wide range of this dynamic market and includes crypto exchanges, custodians, software developers, early-stage investors, trading firms, and others supporting the crypto ecosystem.

[2] The DeFi Education Fund is a nonpartisan advocacy group based in the United States with a mission to educate policymakers about the benefits of decentralized finance and to achieve regulatory clarity for the DeFi ecosystem.

Regulation ATS and Regulation SCI under the Exchange Act ("**Proposal**").[3] We share the Commission's overall goals of leveling the competitive landscape and promoting investor protection in light of technological developments and thank the Commission for its extension of the extremely truncated comment period initially provided to the public on the Proposal.[4]

* * *

Achieving policy objectives in light of new technologies and innovations regularly forces the consideration, development, and adoption of novel regulatory approaches. The United States' dynamic market economy produces all manner of novel solutions to old problems — "new ways of doing things" — which require dynamic responses to accomplish long-standing public policy objectives.[5]

Regardless of the ever-changing means through which people access and participate in the U.S. securities markets, "our central question" remains: "When new technologies come along and change the face of finance, how do we continue to achieve our core public policy goals?"[6] To that end, since the enactment of its foundational statutes in the 1930s, the SEC has consistently adapted its regulations in response to innovations in the United States' dynamic financial markets.[7] All the while, the securities regime's core objectives — protecting investors, maintaining fair and orderly markets, and facilitating capital formation — have rightfully remained constant.

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3 *See* Amendments Regarding the Definition of "Exchange" and Alternative Trading Systems That Trade U.S. Treasury and Agency Securities, National Market System Stocks, and Other Securities, 87 Fed. Reg. 15496 (Mar. 18, 2022) (to be codified at 17 C.F.R. pts. 232, 240, 242, 249).

4 We note, however, that the Commission's brief extension of the comment period still does not provide an adequate opportunity to address the substance of the Proposal for at least two reasons. First, given the extraordinary breadth of the Proposal and the fundamental changes that it would make to the securities markets, sixty days is insufficient to fully evaluate and comment on the Proposal. Second, given the lack of clarity in the Proposal itself — for example, by failing to address its impact in the context of digital asset markets — a meaningful comment would require additional explanation from the Commission, not merely additional time.

5 *See* Gary Gensler, Chair, Sec. & Exch. Comm'n, *Prepared Remarks at the Exchequer Club of Washington, D.C.: Dynamic Regulation for a Dynamic Society* (Jan. 19, 2022) (quoting Sec. & Exch. Comm'n, Report of Special Study of Securities Markets of the Securities and Exchange Commission, Part 1, H.R. Doc. No. 95, pt. 1, at IV (1963)), https://www.sec.gov/news/speech/gensler-dynamic-regulation-20220119#_ftn2.

6 *Id.*

7 *See* Hester Peirce, Comm'r, Sec. & Exch. Comm'n, *Remarks Before the University of Central Florida's Inaugural Fintech Summit: Is that a Fish Behind the Wheel?* (Apr. 1, 2022), https://www.sec.gov/news/speech/peirce-remarks-fintech-summit-040122#_ftn22 ("Recently, however, we proposed to free firms from technology that was state-of-the art in 1997, so that they could use today's technology, which enables much better monitoring of activity.").

These principles have guided the securities regulatory regime through a century of innovations, innovations that could not have been fathomed by the 73rd Congress.[8]

Adaptable regulatory frameworks founded on constant bedrock principles create a virtuous cycle: they maximize the immense potential of permissionless innovation in our dynamic society while still achieving core objectives via flexible responses.[9] The U.S. financial markets' preeminence was surely built (in part) via this "flywheel" of innovation in markets and innovation in regulation. This approach has not only benefited U.S. investors and businesses, but also "contributed to America's geopolitical standing around the globe."[10] We must not abandon it.

Failing to adjust regulations to new technologies threatens to create gaps in investor protection and capital formation, and it undermines the preeminence of the United States' financial markets. Establishing by regulation a single acceptable way of solving problems hamstrings the very dynamism that has led to their competitive advantages. Because regulatory frameworks cannot foresee innovations, and are rarely the source of innovation themselves, failing to adapt them in light of "new ways of doing things" will lead to stasis. It would entrench in perpetuity the current state of affairs as the only acceptable state of affairs, to the detriment of United States markets and investors.

For regulations to vindicate the policy objectives motivating them, they must adapt to *how* an activity is conducted. While both car and airline manufacturers produce vehicles for the same reason — to provide transportation — cars and airlines facilitate transportation in distinct ways. Fortunately, the regulations applicable to car manufacturers and airline manufacturers are responsive to the functional differences through which the vehicles transport people. The same concept is often adopted in the regulation of financial services (e.g., the regulation of checks vs. credit cards) and is especially relevant in the case of decentralized finance protocols.

Decentralized finance ("**DeFi**") protocols join the United States' long history of innovative approaches to conducting well-established financial activities. DeFi software protocols do not change the reasons *why* people and businesses seek financial services — to generate returns, price and hedge risks, make payments, etc. However, these protocols have fundamentally changed *how* people and businesses can access and conduct financial activities. DeFi protocols' "peer-to-peer nature and resulting ability to create alternatives to traditional and centralized financial market infrastructures, products or services"[11] represent "a paradigmatic shift in financial

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8 *See* Securities Act of 1933, Pub. L. No. 73-22, 48 Stat. 74 (1933) (codified as amended at 15 U.S.C. § 77a).

9 *See* Gary Gensler, Chair, Sec. and Exch. Comm'n, *Address at the Annual Conference on Financial Market Regulation: A Century with a Gold Standard* (May 6, 2022), https://www.sec.gov/news/speech/gensler-acfmr-20220506 ("Markets don't stand still. Our disclosure and transparency rules can't stand still, either. Thus, over the generations, the Commission often has updated disclosure and transparency regimes.").

10 *Id.*

11 International Organization of Securities Commissions, *IOSCO Decentralized Finance Report*, at 2, OR01/2022 (2022), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD699.pdf;

see also International Monetary Fund, *Shockwaves from the War in Ukraine Test the Financial System's Resilience*, Global Financial Stability Report, at 73 (Apr. 2022), services provisioning and promises to be one of the most disruptive applications of blockchain-fuelled decentralization."[12] They are "a novel phenomenon."[13]

Because DeFi protocols represent a major development in how financial activities can be accessed and conducted, "it is obvious that simply copying traditional regulatory approaches in a decentralized environment may not be an option, since [these approaches] have traditionally focused on intermediaries that play a central role in the [traditional] financial system."[14] Because

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https://www.imf.org/en/Publications/GFSR/Issues/2022/04/19/global-financial-stability-report-april-2022 ("Decentralized finance refers to financial applications—called "smart contracts"—processed by computer code on blockchains, with limited or no involvement of centralized intermediaries.");

European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union, *European Financial Stability and Integration Review 2022*, at 43 (Apr. 7, 2022), https://ec.europa.eu/info/sites/default/files/european-financial-stability-and-integration-review-2022_en.pdf ("[D]ecentralised finance. . . is a newly emerging form of autonomous financial intermediation in a decentralised digital environment power by software – 'smart contracts' on public blockchains.");

Organization for Economic Cooperation and Development, *Why Decentralised Finance Matters and the Policy Implications*, at 15 (2022), https://www.oecd.org/daf/fin/financial-markets/Why-Decentralised-Finance-DeFi-Matters-and-the-Policy-Implications.pdf ("Decentralised Finance or 'DeFi' seeks to provide traditional financial services involving crypto-assets (i.e. mimicking the 'CeFi' or centralized finance market) in an open, decentralized, permissionless way.").

12 EU Blockchain Observatory and Forum, *Decentralised Finance (DeFi)*, at 38 (2022), https://www.eublockchainforum.eu/sites/default/files/reports/DeFi%20Report%20EUBOF%20-%20Final_0.pdf.

13 *Id.*

14 European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union, *European Financial Stability and Integration Review 2022*, at 59 (Apr. 7, 2022), https://ec.europa.eu/info/sites/default/files/european-financial-stability-and-integration-review-2022_en.pdf;

see also Organization for Economic Cooperation and Development, *Why Decentralised Finance (DeFi) Matters and the Policy Implications* (2022), https://www.oecd.org/daf/fin/financial-markets/Why-Decentralised-Finance-DeFi-Matters-and-the-Policy-Implications.pdf ("Some of the characteristics of DeFi may be incompatible with existing regulatory frameworks, particularly given that the current framework is designed for a system that has financial intermediaries at its core. As the existence of intermediaries is contrary to the very essence of decentralized finance, it can be difficult to identify parties involved that can be assessed or regulated, making it challenging to supervise DeFi constructs with the existing oversight architecture. Enforcement of existing regulation could also be difficult to apply given the absence of identified accountable entity in some arrangements. The absence of regulatory/supervisory access points in decentralized DeFi systems is one of the key policy questions that remains to be overcome.");

International Organization of Securities Commissions, *IOSCO Decentralized Finance Report*, at 36, OR01/2022 (Mar. 2022), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD699.pdf (finding "the existence of intermediaries is contrary to the very essence of decentralized finance," it will be "challenging to supervise DeFi constructs with the existing oversight architecture."[15] Unfortunately, the Proposal seeks to do just that.

The Proposal fails to adapt to — let alone acknowledge[16] — the fundamentally new ways in which individuals can conduct asset exchanges using DeFi protocols. Instead, it would improperly apply regulations designed for intermediating exchanges like the New York Stock Exchange to software or software developers.[17] By adopting a static regulatory response to a "paradigmatic" technological development in financial services, the Proposal, unfortunately, will not accomplish the laudable objectives motivating its consideration.

Needless to say, software cannot comply with regulatory obligations; only "persons" with the capacity to modify their own behavior are "regulateable." But the developers of open-source software are also improper targets for the Proposal. They lack the capacity to modify the code they have developed after it is launched to comply with regulations designed for intermediating financial institutions. In turn, the Proposal's adoption would, at best, entrench the traditional structure of securities exchanges as the only "acceptable" way for U.S. investors to exchange securities, abandoning the Commission's long and august history of adapting its regulatory approach in response to the emergence of new technologies and the principle that "no regulation can be static in a dynamic society."[18] At worst, imposing exchange regulations on software developers would amount to a *de facto* ban on merely "making available" such software

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disintermediation "…eliminates market participants that have traditionally acted as gatekeepers, performing central roles of ensuring investor protection and market integrity… Absent these intermediaries – and without appropriate substitute mechanisms – the risk for investor and market harm may be exacerbated.");

International Monetary Fund, *Shockwaves from the War in Ukraine Test the Financial System's Resilience*, Global Financial Stability Report, at 82 (Apr. 2022), https://www.imf.org/en/Publications/GFSR/Issues/2022/04/19/global-financial-stability-report-april-2022 (noting that DeFi "render[s] the traditional approach to regulation ineffective.").

15 Ana Badour et al., *OECD Publishes Report on Implications and Policy Considerations of Decentralised Finance (DeFi)*, McCarthy Tétrault LLP (Feb. 10, 2022), https://www.mccarthy.ca/en/insights/blogs/techlex/oecd-publishes-report-implications-and-policy-considerations-decentralised-finance-defi#_ftn12 (citing Organization for Economic Cooperation and Development., *Why Decentralised Finance (DeFi) Matters and the Policy Implications* (2022), https://www.oecd.org/daf/fin/financial-markets/Why-Decentralised-Finance-DeFi-Matters-and-the-Policy-Implications.pdf).

16 The Proposal does not reference DeFi protocols or digital assets directly.

17 *See* Hester M. Peirce, Comm'r, *Dissenting Statement of Hester M. Peirce in Response to Release No. 34-88284; File No. SR-NYSEArca-2019-39*, Sec. & Exch. Comm'n (Feb. 26, 2020), https://www.sec.gov/news/public-statement/peirce-dissenting-statement-34-88284.

18 Sec. & Exch. Comm'n, Report of Special Study of Securities Markets of the Securities and Exchange Commission, Part 1, H.R. Doc. No. 95, pt. 1 (1963), https://www.sechistorical.org/collection/papers/1960/1963_SSMkt_Chapter_01_1.pdf.

within the United States, improperly imperiling U.S. citizens' First Amendment-protected rights to write and publish code.[19]

Moreover, the adoption of such a static approach to regulating a dynamic technological development will not protect investors, facilitate capital formation, or maintain orderly markets. It would not prevent U.S. users from accessing DeFi protocols, if that were the Commission's ultimate (if ill-advised) goal. DeFi protocols "allow people to come together to trade crypto-assets through automated open-source protocols that are outside the control of any person."[20] This means that DeFi protocols will remain accessible to any U.S. user with an internet connection in perpetuity, regardless of whether the Proposal is adopted.

In short, for the Commission to achieve its core policy objectives in the context of DeFi protocols, it must find another way — in collaboration with the U.S. stakeholders supporting and building this technology, rather than in opposition to them. The Blockchain Association and the DeFi Education Fund appreciate the opportunity to provide this additional comment with respect to this important rulemaking. We and our counsel are available to meet and discuss these matters, or to respond to any additional questions, at the Commission's convenience.

Sincerely,

Jake Chervinsky
Head of Policy
Blockchain Association

Miller Whitehouse-Levine
Policy Director
DeFi Education Fund

cc: The Hon. Gary Gensler, SEC Chair
The Hon. Hester M. Peirce, SEC Commissioner
The Hon. Allison Herren Lee, SEC Commissioner
The Hon. Caroline A. Crenshaw, SEC Commissioner

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19 *See*, *e.g.*, *Bernstein v. U.S. Dep't. of State*, 922 F. Supp. 1426 (N.D. Cal. 1996); Justin S. Wales and Richard J. Ovelmen, *Bitcoin is Speech: Notes Toward Developing the Conceptual Contours of Its Protection Under the First Amendment*, 74 U. Mia L. Rev. 204 (2019), https://repository.law.miami.edu/umlr/vol74/iss1/6.

20 Hester M. Peirce, Comm'r, *Is that a Fish Behind the Wheel? Remarks before the University of Central Florida's Inaugural FinTech Summit*, Sec. & Exch. Comm'n (Apr. 1, 2022), https://www.sec.gov/news/speech/peirce-remarks-fintech-summit-040122.

DeFi Education Fund

April 18, 2022

Via Electronic Mail: rule-comments@sec.gov

Vanessa A. Countryman
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Re: Notice of Proposed Rulemaking on Amendments to Exchange Act Rule 3b-16 Regarding the Definition of "Exchange"; Regulation ATS for ATSs That Trade U.S. Government Securities, NMS Stocks, and Other Securities; Regulation SCI for ATSs That Trade U.S. Treasury Securities and Agency Securities; File No. S7-02-22

Dear Ms. Countryman:

The DeFi Education Fund[1] ("**DEF**") appreciates the opportunity to provide comments to the Securities and Exchange Commission ("**SEC**" or "**Commission**") on its proposed "Amendments to Exchange Act Rule 3b-16 Regarding the Definition of Exchange," Release No. 34-940602 (January 26, 2022) ("**Proposal**"). This letter addresses those aspects of the SEC's proposed amendments to Rule 3b-16 that would revise certain terms used in the statutory definition of an "exchange" under Section 3(a)(1) of the Securities Exchange Act of 1934 ("**Exchange Act**").

Although we support the Commission's overall goals of levelling the competitive landscape and promoting investor protection in light of technological developments, we have significant concerns about the Proposal as written. As discussed below, the Proposal is so broad and vague in a number of important respects that it could stifle a wide range of beneficial technological advances, which would harm both U.S. market participants and the United States' competitive position in global markets.

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1 DEF is a nonpartisan advocacy group based in the United States with a mission to educate policymakers about the benefits of decentralized finance and to achieve regulatory clarity for the DeFi ecosystem.

It is especially unclear whether the Proposal would regulate participants in the digital assets and decentralized finance ("**DeFi**") ecosystem. If the Commission intends in this rulemaking (which never once mentions DeFi or digital assets) to address participants in this ecosystem, it should instead do so with proper notice and as part of the coordinated, deliberate, and multi-agency approach President Biden ordered on March 9, 2022.[2]

OVERVIEW

The Proposal would generally require an organization, association, or group of persons to register as either a national securities exchange (like NYSE and Nasdaq) or a broker-dealer/alternative trading system ("**ATS**") (like BrokerTec or Instinet) if it brings together parties expressing "trading interest" in securities and "makes available" certain methods under which buyers and sellers can interact and agree to the terms of a trade. Historically, these methods cover trading facilities and rules-setting bodies such as stock exchanges. The Proposal would expand the scope of these methods to include—for the first time—a broad range of communication systems (referred to as "**Communication Protocol Systems**" or "**CPSs**").

The stated aim of the Proposal is to update the regulation of exchanges and ATSs to address technological developments. We value the Commission's effort to provide legal certainty and notice for market participants in a changing environment. We also support the Commission's objective of creating a more level competitive landscape by regulating like systems consistently without favoring any specific market structure, technology, or manner of trading.

Unfortunately, the Proposal falls well short of these objectives. Using the broad concepts of "trading interest" and "communication protocols" to radically expand exchange and broker-dealer/ATS registration requirements would not level the competitive landscape. Rather, it would advantage traditional financial services companies by potentially applying the same regulations to fundamentally dissimilar technologies. It would also upset, without clear benefit, the previously settled expectations of market participants and investors by rendering obsolete a long line of Commission no-action letters on which the securities industry has relied for decades. That the Commission felt the need to clarify that web-chat providers like Facebook Messenger, and utilities like cell phones, would not be required to register as securities exchanges raises critical questions about the Proposal's scope.[3] The vagueness and uncertainty the Proposal would introduce into the securities laws would stifle innovation and impose significant burdens on market participants and investors seeking to comply with the law.

We find even more troubling the proposal to regulate as exchanges those who "make available" a "communication protocol" that could be used in connection with trading

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2 *See* Executive Order on Ensuring Responsible Development of Digital Assets (Mar. 9, 2022), *available at* https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets.

3 Proposal, 87 Fed. Reg. 15496, at p. 15502 (Mar. 18, 2022).

activities. Would this aspect of the Proposal require original developers of a software that could be used for trading to register as an exchange, even if they have no ongoing involvement with or control over the transactions using the software? What about a vendor who sells the software? A contractor who maintains the software? Requiring any of these parties to register with the Commission and take responsibility for recording, reporting, and policing transactions in which they have no actual role would be misguided and unworkable. It will result only in the restriction or elimination of important technological development in the U.S., on which many market participants have come to rely, in turn undermining U.S. investors and the United States' economic competitiveness.

Even if we could understand the new "exchange" definition's limits, regulating CPSs under exchange/ATS rules is impracticable and will not achieve the Commission's stated objectives. There are fundamental structural differences between businesses historically regulated as exchanges and ATSs and those the Proposal may capture. Exchanges and ATSs generally enable market participants to buy and sell listed securities and provide execution functionality and other related services, and exchanges have robust governance systems with well-defined rules. Those functions are not offered by, and cannot be offered by, the CPSs that may be regulated by the Proposal. The key functional differences between traditional trading platforms and CPSs create different risks, which should be mitigated through nuanced rules tailored to each type of service provider.

Moreover, the Proposal's definition of an exchange is so expansive that, without further guidance from the Commission, the Proposal could be interpreted to regulate certain DeFi protocols. Unlike proprietary software, these protocols are open source, with governance typically exercised by the broad community of users interacting through technology, rather than by a central operator or governing body; in some instances, there is no governance structure at all. We assume that the Commission does not intend to capture these protocols for several reasons: *first*, because of the substantive issues of regulating decentralized markets using a registration framework that assumes centralized control; *second*, because of the lack of supporting analysis and the fact that the 591-page Proposal does not reference these protocols at all; *third*, because of the significant procedural and substantive impediments the Proposal would face under the Administrative Procedure Act, the Exchange Act, and potentially the U.S. Constitution; and, *fourth*, as explained below, because DeFi protocols do not present the same risks as traditional financial institutions regulated as exchanges and ATSs. Given the expansive scope of the Proposal, however, and its uncertainties and ambiguities, we urge the Commission to clarify and confirm that DeFi protocols are not within the scope of the proposed rules.

Foisting unworkable registration requirements on DeFi protocol developers or other market participants—designating them as financial intermediaries even though they do not play an intermediating role or exercise control over participants or trading —would cause great harm to U.S. financial market participants. These protocols provide investors the important benefits of transparency, fair and open access, constant uptime, elimination of broker risks and reduced costs, among others. But the Proposal could be read to ban this beneficial market structure innovation, as well as a wide range of established communications and software tools that have never been, and should not be, regulated as exchanges. Simply put, the Commission has not justified, and cannot justify, such a sweeping change. Requiring DeFi protocol developers or other market participants to register as exchanges or broker-dealer/ATSs would advantage existing incumbents and technologies while stunting continued modernization of the U.S. securities markets, to the detriment of all market participants and to the benefit of competing markets abroad.

We respectfully urge the Commission to take these considerations into account and restructure the Proposal by adopting an approach that is tailored to the Commission's expressed concerns and objectives.

DISCUSSION

I. Overview of Decentralized Finance

A. General Background of Decentralized Finance

DeFi is an umbrella term used to describe decentralized software protocols that can be used to conduct economic activities on blockchain networks. DeFi protocols provide open, transparent access to various types of financial services without requiring or even needing centralized intermediaries or institutions. Instead of relying on centralized intermediaries to establish trust between counterparties in financial transactions, DeFi systems establish trust via rules-based, encoded protocols that allow individuals to transact via blockchain networks.

A subset of DeFi protocols—commonly called "decentralized exchanges" or "DEXs"—allow parties to buy and sell a variety of digital assets, some of which may be securities. These protocols do not rely on banks, brokers, centralized execution, or clearing functions as intermediaries, but rather utilize open-source software running on distributed ledgers, *i.e.* "blockchains." Public blockchains are permissionless, decentralized, and immutable ledgers that enable all nodes on a network to (1) hold a record of the history of transactions on the network and (2) reach consensus as to the validity of those transactions. No single entity participating in the network has control over, or can alter, that ledger of transactions. Smart contracts are a type of software program that run on public blockchains. Smart contracts can be designed to automatically execute specific actions without the involvement of a third party when certain conditions are met. These software programs, *i.e.* DEXs, allow parties to exchange digital assets directly without any financial intermediary's involvement.

DeFi protocols such as DEXs aim to address several challenges and risks inherent in the structure of the traditional financial industry, namely, limited access, slow settlement cycles, inefficient price discovery, liquidity challenges, a lack of assurance around underlying assets, opaqueness, broker risk and uptime issues. DeFi protocols can be distinguished from traditional exchanges and other market infrastructures in several ways. For example, assets are held directly by users in self-hosted wallets or through smart contract-based escrow[4] rather than by a centralized service provider or custodian in an account on the asset owners' behalf. Wallets managed by a smart contract offer users additional protections, such as multi-signature authorization for transactions, which requires two or more users to authenticate a transaction before it can be executed, and emergency account freezing when a device is lost or stolen. Second, execution occurs using software (smart contracts) rather than financial intermediaries. Smart contracts deployed on a blockchain are transparent, secure, and immutable.[5] Additionally, rather than relying on a centralized service provider, operator, or self-regulatory organization that ultimately exercises discretion and dominion over the marketplace, DeFi protocols are governed by open-source code initially set by protocol developers and later determined by a large number of distributed users holding tokens granting voting power (known as governance tokens). Though DeFi governance is evolving, on-chain governance methods, such as enabling users to vote for and implement proposed changes directly on the blockchain, including the disbursement of governance tokens, are emerging methods for governing protocols fairly and transparently.

By allowing market participants to transact directly utilizing open-source software, DeFi protocols provide the following benefits to consumers:

- Increased Transparency: DeFi protocols increase operational transparency about the mechanics of market infrastructures and associated fees by using open-source software, which makes transactions more transparent and auditable by using blockchain-based records.

- Equitable Market Access: DeFi protocols are open and available to anyone in the world with an internet connection, giving them the potential to significantly expand access to financial services.[6] That access empowers more people to use financial services without having to go through intermediaries that may prevent sectors of the market from participation, either through unavailability, absolute prohibitions, excessive pricing, or unfair or discriminatory treatment.

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4 Before making a transaction, tokens are transferred to a smart contract called escrow. The escrow holds the deposited tokens until the payment conditions are satisfied. The escrow is not controlled by any designated third party.

5 Users may create intermediary or proxy contracts that redirect calls and transactions to a modified contract as a way of updating an earlier contract.

6 *See, e.g.,* Bitange Ndemo, The role of cryptocurrencies in sub-Saharan Africa, Brookings Institution (March 16, 2022), https://www.brookings.edu/blog/africa-in-focus/2022/03/16/the-role-of-cryptocurrencies-in-sub-saharan-africa.

- 24/7/365 Liquidity: Users can access and use markets at all times of the day without the need for closing markets at the end of each day. Among other things, this eliminates the risk of capital dislocations due to illiquid aftermarket trading in traditional systems.

- Lower Costs and Faster Settlement: DeFi protocols reduce friction and transaction costs for the creation, distribution, trading, and settlement of financial assets with faster settlement times for users.[7]

- Improved Security: Transactions using DeFi protocols are recorded on blockchains, the records of which cannot be manipulated or amended, offering greater security to users.

- Greater Control: The absence of intermediaries in DeFi protocols provides stakeholders greater control and certainty. Additionally, in some instances, market participants can directly develop community-governance standards.

- Greater Uptime: Permissionless blockchains are operationally resilient (the Ethereum blockchain has never gone down), whereas traditional exchanges have had major technology failures, resulting in downtime for securities markets. Additionally, the use of certain DeFi protocols referred to as automated market makers eliminates trading halts that occur at times as a result of buy and sell order imbalances.

- Eliminate Broker Risk: DeFi protocols have no employees to supervise, no financial risk for users from broker activity or custody, and no interaction between a broker and customers that could result in unlawful sales practices or other unfair and discriminatory dealing.

- Eliminate Anti-Competitiveness: Users can easily move their cryptocurrencies from one protocol to another at any time without significant friction, unlike the experience on traditional exchanges where sharing liquidity across exchanges is near-impossible, resulting in a lack of competition.

DeFi protocols are already making substantial contributions to financial innovation generally and in the U.S. specifically. The Official Monetary and Financial Institutions Forum recently observed that DeFi is being harnessed for the public good and has spurred innovation in the banking system.[8] Academic scholarship has discussed how DeFi protocols benefit efficiency,

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7 To be sure, users of DeFi protocol may pay certain fees, such as gas fees, to facilitate use of the protocol. But any comparison of costs should also account for the fact that DeFi users do not additionally need to compensate other intermediaries such as executing brokers, prime brokers, clearing brokers, or custodians. On balance, this leads DeFi protocols typically to be available to users at lower costs than centralized exchanges. As additional blockchains are created and new technology, such as scaling solutions, are developed, costs for transacting using DeFi protocols likely will continue to decrease.

8 Official Monetary and Financial Institutions Forum, *Harnessing Decentralised Finance Innovation for the Public Good* (July 20, 2021), Harnessing decentralised finance innovation for the public good - OMFIF.

by "significantly decreas[ing] counterparty credit risk"; how they benefit transparency, by offering more publicly available data during a crisis than the data "scattered across a large number of proprietary databases or not available at all" in traditional financial systems; how they benefit accessibility, as "the risk of discrimination is almost inexistent due to the lack of identities"; and how they benefit composability, by creating "an ever-expanding range of possibilities and unprecedented interest in open financial engineering."[9]

B. Communication Systems and DeFi Protocols Do Not Operate Like Exchanges or Broker-Dealers

DeFi protocols are more like traditional information-service providers than they are like exchanges, ATSs, or broker-dealers. The Commission has consistently exempted, or granted relief from registration for, entities such as communications service providers, software providers, and data vendors, which provide administrative or technological support to market participants but do not themselves perform the functions of an exchange or ATS.[10] Such entities may provide communication, connectivity, or software services that parties can utilize to communicate trading interest, but they do not match buyers and sellers, intermediate transactions, or perform other functions that introduce unique risks warranting regulation as exchanges or ATSs.[11] For example, communication service providers may provide various services that allow parties to publicize their interest in buying or selling securities, but the providers do not themselves have any role in executing transactions or in the completed transactions following execution and typically cannot even know if transactions have been executed and settled. These service providers have been important sources of support to the financial markets but have not themselves been subject to direct regulation as exchanges or broker-dealers and could not continue to function if they became subject to such frameworks and associated regulatory requirements premised on an intermediary's necessary involvement with transactions.

Even more so than traditional information service providers, DeFi protocols differ fundamentally from exchanges and broker-dealers because the software protocols are not generally subject to centralized control. Even when DeFi protocols originate from a single

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9 Fabian Schär, Decentralized Finance: On Blockchain- and Smart Contract-Based Financial Markets, Federal Reserve Bank of St. Louis Review (Second Quarter 2021), p. 169, https://research.stlouisfed.org/publications/review/2021/02/05/decentralized-finance-on-blockchain-and-smart-contract-based-financial-markets.

10 *See, e.g.,* S3 Matching Technologies LP, SEC No-Action Letter (July 19, 2012); GlobalTec Solutions, LLP, SEC No-Action Letter (Dec. 28, 2005).

11 *See, e.g.,* First of America Brokerage Services, Inc., SEC No-Action Letter (Sept. 28, 1995); Swiss American Securities, Inc. and Streetline, Inc., SEC No-Action Letter (May 28, 2002); FundersClub Inc. and FundersClub Management LLC, SEC No-Action Letter (Mar. 26, 2013); AngelList LLC and AngelList Advisors LLC, SEC No-Action Letter (March 28, 2013).

software developer or small group of developers, they are generally designed to involve governance arrangements that ensure dispersal of control among a decentralized and disaggregated group of unrelated users. As discussed further in Section IV of this letter, such a decentralized model is especially ill suited to existing registration frameworks.

II. The Proposal's Definition of "Exchange" Is Overbroad and Would Ban Beneficial Market Tools and Structures, Thus Harming Market Participants and the United States' Competitive Position Without Protecting Investors or the Market Generally

Under the Proposal, the definition of an exchange would include any organization, association, or group of persons that "(1) brings together buyers and sellers of securities using trading interest; and (2) makes available established, non-discretionary methods (whether by providing a trading facility or communication protocols, or by setting rules) under which buyers and sellers can interact and agree to the terms of a trade."[12] We respectfully submit that this definition is overbroad as a matter of policy, ignores the costs to parties potentially including DeFi protocol developers and other market participants, and exceeds the Commission's statutory and constitutional authority.

A. The Proposed "Exchange" Definition Is Overbroad

The proposed definition of an "exchange" is breathtaking in its scope and may be interpreted to cover a broad range of entities that provide essential support services to financial market participants but have no involvement in or responsibility for the execution of trades between buyers and sellers. The financial services industry, like all advanced industries, relies on specialization and a diverse array of products and services that are essential to its operation. This industry, now more than ever, is extraordinarily dependent on communications and technological services. In particular, modern financial markets require communications systems, data transmission services, software development, and other products and services and could not function without them. None of the entities providing these products or services has ever been regarded or treated as an exchange or ATS and they should not be so regarded going forward.

Parties making available CPSs that aggregate a few different market applications or a single market tool that was developed for only discrete, communicative purposes should not be regulated as exchanges. Even the most comprehensive CPSs should not be regulated as exchanges if they lack features that make traditional regulation sensible, possible, and effective: *ongoing involvement in transactions and the capability to supervise and control trading behavior*.[13] Regulating DeFi protocols or CPSs (or related parties) as exchanges could effectively

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12 Proposal, at p. 15504.

13 The Proposal mandates many responsibilities that require a centralized, supervisory organization. *See, e.g.*, Proposal at 48–49 ("A national securities exchange is an SRO and must set standards of conduct for its members, administer examinations for compliance with these standards, coordinate with other SROs with respect to the dissemination of consolidated market data, and generally take responsibility for

operate as a ban, as these entities are incapable of complying with regulations that require them to monitor and oversee participant activity. The Commission concedes that the Proposal is intended to capture CPSs that "take a more passive role"[14] in the market but then proceeds to mandate responsibilities that only a system with an active intermediating role could fulfill. How, for example, could a software developer who contributed code to an open-source project "administer examinations" to ensure compliance with the trading rules of a system that subsequently incorporated that code?[15] How could a chat service ensure "the equitable allocation of fees," as required by a national securities exchange, when that service only facilitates communication?[16] The number of market participants that seem to be captured by the Proposal but are inherently unable to comply with its requirements renders the Proposal fatally overbroad.

In particular, it is concerning that systems providing communication and other financial technology adjacent to trading, such as bespoke direct messaging or market information services, could be captured under the overbroad "makes available" standard of the Proposal. Under the capacious ambit of the new definition, such systems could be considered to "make available" the means for "buyers and sellers" to "interact." However, no matter how far upstream or distinct a system is from an actual trade, the Proposal presumes that many specialized parties in the financial industry warrant the same obligations as a traditional national securities exchange or electronic communication network. Such regulation would be ineffective for systems that cannot control trading activity that occurs without their involvement. Imposing regulation designed for centralized market intermediaries onto systems that function in a fundamentally different manner is simply unworkable in practice.

As discussed, DeFi protocols are a subset of these tools that cannot and should not be regulated as exchanges. DeFi software developers construct protocols that third parties can utilize completely independently of transactions in financial instruments. However, these software developers typically have no involvement in, oversight of, or control over the deployment, trading, resolution, or settlement of instruments that might be transacted using the protocols they have built. Thus, like other software developers, DeFi developers do not and cannot maintain any active oversight of how their software is used after sale, publication, or availability on an open-source network. In these fundamental and critical respects, DeFi software

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enforcing its own rules and the provisions of the Exchange Act and the rules and regulations thereunder. [. . .] Pursuant to Section 6 of the Exchange Act, national securities exchanges must establish rules that generally: (1) are designed to prevent fraud and manipulation, promote just and equitable principles of trade, and protect investors and the public interest; (2) provide for the equitable allocation of reasonable fees; (3) do not permit unfair discrimination; (4) do not impose any unnecessary or inappropriate burden on competition; and (5) with limited exceptions, allow any broker-dealer to become a member.").

14 Proposal, at p. 15506.

15 Proposal, at p. 15508.

16 *Id.*

developers are identical to other software developers that have served the financial services industry for many years. We are concerned that the Proposal's overly broad "makes available" standard could subject them to onerous regulation solely on the basis of having lines of their code subsequently used by unrelated third parties. The Proposal does not provide sensible, limiting language that would cabin the new definition of "exchange" to only those parties involved directly in the transactions or those that exercise actual oversight of transactions.

We understand that many parties potentially covered by the new definition might elect to be regulated as ATSs rather than registering as exchanges, an option available under the proposed regulations.[17] However, registering as an ATS would require compliance with requirements that likewise simply cannot be met by entities the Proposal could capture. One such requirement is Rule 15c3-5, which mandates that ATSs prevent the execution of orders that exceed certain credit or capital thresholds.[18] A software developer that contributes code to an open-source project that subsequently allows third parties to engage in trading activity has no ability to supervise that activity or impose limitations on the types of orders that are entered. Indeed, it is inherent in the concept of decentralization that the developer is not able to do so. The software developer will not possess participant information or supervisory controls, such as the ability to stop trades or exclude certain participants. Moreover, a software developer that registers as an ATS would also be subject to burdensome transaction reporting requirements, which it also will not be able to satisfy. These regulations can be applied only to entities that operate centralized markets and not to a loosely affiliated, hyper-specialized constellation of independent parties and systems.

B. Regulation of DeFi Protocols as Exchanges or ATSs Would Not Benefit Investors

The Proposal runs counter to the objectives recently identified by the Commission's Chair. In a discussion of the "dramatic" evolution of markets "[o]ver the past several decades" that requires "modernizing our rules for today's economy and technologies," Chair Gary Gensler proclaimed a "drive towards greater efficiency through competition and transparency."[19] We respectfully submit that the Proposal will limit competition and transparency by entrenching existing market players and will therefore operate to the detriment of investors and the public. If the Commission's aim is to increase competition and transparency, this Proposal is deficient in all respects, will actually undermine the Commission's stated objectives and requires significant revision.

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17 Proposal, at p. 15586.

18 *See* 17 C.F.R. § 240.15c3-5(c)(1)(i).

19 Gary Gensler, *Prepared Remarks: "Dynamic Regulation for a Dynamic Society" Before the Exchequer Club of Washington, D.C.*, Securities and Exchange Commission (Jan. 19, 2022), https://www.sec.gov/news/speech/gensler-dynamic-regulation-20220119.

The Proposal seems to presume that many communications and software tools can be restructured to forego the innovative features that have made them effective in filling gaps in the traditional financial system. But developers cannot comply with the requirements. A software developer that contributes lines of code to open-source projects on permissionless networks cannot somehow take control of that code across all of its subsequent uses to supervise any potential application of it to trading activity. Instead, that developer will leave the market or provide services to a traditional trading platform, thereby further entrenching the traditional systems and widening the gaps these innovations have begun to fill. Thus, the regulations could effectively ban many parts of the industry they seek to regulate.

In particular, precluding or restricting the use of decentralized exchange protocols, and mandating centralization, will facilitate and exacerbate, rather than curtail, the threats to investors that the Commission seeks to prevent. Indeed, one expert concluded from a security audit of disintermediated market applications that "decentralized finance's main problem is centralization."[20] By nature, these kinds of protocols gain security through more decentralization, not less. The Proposal will thus create greater risks for investors by centralizing those disintermediated market applications that it does not regulate out of existence. And it will reduce or eliminate market access for many market participants, imposing greater risks on the system generally.

C. The Proposal Would Harm the United States' Competitive Position Without Benefit

Many sectors of the economy are currently decentralizing, and DeFi protocols therefore represent only one example of an evolving trend that the Proposal would arbitrarily and unnecessarily impede.[21] But the Commission cannot impede decentralization in other jurisdictions, which are taking affirmative steps to attract the disintermediated market industry.

El Salvador, for example, has adopted bitcoin as legal tender and seeks to create a tax-free "Bitcoin City" that would attract bitcoin miners.[22] *The Financial* Times observes that,

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20 Joe Uchill, *Centralization, ironically, most common cause of decentralized finance hacks*, SC Media (Jan. 19, 2022), https://www.scmagazine.com/analysis/application-security/centralization-ironically-most-common-cause-of-decentralized-finance-hacks. *See also*, Sam Bourgi, *'Centralization issues' are the biggest culprits of DeFi attacks: CertiK*, Cointelegraph (Jan. 11, 2022), https://cointelegraph.com/news/centralization-issues-are-the-biggest-culprits-of-defi-attacks-certik.

21 *See, e.g.*, Tyler Cowen, *The Future Will Be Decentralized*, Bloomberg Opinion (Feb. 7, 2021), https://www.bloombergquint,com/amp/opinion/everything-will-soon-be-on-the-blockchain-whatever-that-means.

22 *See, e.g.*, Kejal Vyas and Santiago Pérez, *Can Bitcoin Be a National Currency? El Salvador Is Trying to Find Out*, The Wall Street Journal (Feb. 16, 2022), https://www.wsj.com/articles/bitcoin-national-currency-el-salvador-11645026831.

"[w]hile other governments seek to rein in crypto businesses," Switzerland "intends to have a first-mover advantage when it comes to crypto fintech," and has licensed two cryptobanks and introduced codification for unique disintermediated market needs, such as proof of ownership.[23] The United Arab Emirates seeks to attract the disintermediated market industry by "grant[ing] bespoke licenses for blockchain related businesses."[24] By at least one metric, the United States is the current global leader for the adoption of DeFi protocols, though its closest competitors currently include China and the United Kingdom.[25] But the absence of permissions, the lack of need for geographic proximity, and the open-source techniques of DeFi protocol development mean that it is highly mobile and accessible to consumers anywhere in the world with internet access.

If the United States is to reap the benefits of the industry and help determine the ultimate regime that regulates it, the Commission must not adopt regulations that could regulate its development out of existence within the United States' borders. The Proposal may very well drive financial innovation offshore and leave the U.S. markets at a substantial competitive disadvantage. Once driven offshore, however, financial innovations will not cease, and American investors will still desire to access these permissionless protocols via the internet. Rather than imposing a *de facto* ban on development that would foster incentives for American investors to seek out offshore markets, it would be better to create a framework for U.S. investors to trade under appropriate U.S. regulatory oversight.

Moreover, given that the decentralized finance ecosystem is in its early stages and a regulatory framework for digital assets has not yet been developed, the United States has a unique opportunity to take a balanced approach to the DeFi industry that carefully outlines appropriate regulatory parameters while balancing the costs and benefits to investors.[26] Such an approach would not only protect U.S. investors, but would also create incentives for development within the DeFi industry to take place onshore and to nurture domestic growth. Additionally, the United States has an opportunity to capitalize on its position as an early hub for the DeFi industry by influencing other international regimes to follow its regulatory approach.

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23 Sam Jones, *Switzerland's crypto valley looks past cold market winds*, Financial Times (Jan. 6, 2022), https://www.ft.com/content/b827f5c4-1278-4e36-8c5e-e450a325c16f.

24 Issac John, *DeFi set to revolutionise global trade*, Khaleej Times (Dec. 17, 2021), https://www.khaleejtimes.com/business/defi-set-to-revolutionise-global-trade.

25 *See Introducing the Chainalysis Global DeFi Adoption Index*, Chainalysis (Oct. 24, 2021), https://blog.chainalysis.com/reports/2021-global-defi-adoption-index.

26 *See* Executive Order on Ensuring Responsible Development of Digital Assets (Mar. 9, 2022), *supra* note 2, ("The United States has an interest in ensuring that it remains at the forefront of responsible development and design of digital assets and the technology that underpins new forms of payments and capital flows in the international financial system, particularly in setting standards that promote: democratic values; the rule of law; privacy; the protection of consumers, investors, and businesses; and interoperability with digital platforms, legacy architecture, and international payment systems.")

III. The Proposal Exceeds the Commission's Statutory Authority

We respectfully submit that an organization, association, or group that merely "makes available" a CPS, without further involvement in transactional execution and related services that are characteristic of exchanges, does not satisfy the definition of an "exchange" in Section 3(a)(1) of the Exchange Act. The statutory definition of an "exchange" includes a specific requirement that the organization, association, or group be "otherwise performing with respect to securities the functions commonly performed by a stock exchange."[27] Congress's use of the word "otherwise" means that the definition's reference to "bringing together purchases and sellers of securities" must be read in conjunction with whether the relevant organization, association, or groups of persons is bringing together such purchasers and sellers in a manner consistent with the functions commonly performed by a stock exchange.[28] Any other reading would lead to overbroad results, such as covering online discussion forums, industry conferences, and other settings where securities market participants share ideas with each other.

Consistent with this reading, the "exchange" definition has historically and repeatedly been interpreted to encompass system or platform *operators* that necessarily assume responsibility for a variety of execution and related services and maintain an ongoing trading and self-regulatory relationship with their participants.[29] In contrast, the statutory definition does not, and has not been construed to, apply to entities or groups that offer communications and

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[27] *See* 15 U.S.C. § 78c(a)(1).

[28] *See* Delta Government Options Corp., 55 Fed. Reg. 1,890, 1,894 (Jan. 12, 1990) (finding that the "Delta System" was not an "exchange" because the "fundamental characteristic" of an exchange is "centralized trading and providing purchasers and sellers...buy and sell quotations on a regular or continuous basis so that [they] have a reasonable expectation that they can regularly execute their orders t those price quotations"). In 1998, the Commission also promulgated a regulation that specifically tied "exchange" status to marketplace functions. *See* 17.C.F.R. § 240.3b-16 (providing that an entity or group is an "exchange" if it (1) "brings together the orders for securities of multiple buyers and sellers" and (2) uses established, non-discretionary methods...under which such orders interacts with each other, and the buyers and sellers entering such orders agree to the terms of a trade").

[29] *See, e.g., Automated Matching Sys. Exch., LLC* v. *United States Sec. & Exch. Comm'n*, 826 F.3d 1017, 1021–22 (8th Cir. 2016) (finding that "[t]he [Exchange] Act controls what types of entities can operate as a securities exchange" and observing that "[a] registered national securities exchange enforces compliance of its members and associated persons with its internal rules, as well as with federal securities laws and rules and regulations thereunder"; "must maintain procedures to surveil for securities law violations, such as insider trading and manipulation on the exchange and examine its members for compliance with securities laws, Commission rules and regulations, and its own rules"; "must...discipline its members and persons associated with its members when it finds a violation; and "must address a variety of subjects" that "include membership, fair representation in governance, and burdens on competition," among other factors) (internal citations omitted).

software services used in connection with trading activities but that have no ongoing relationship with users and no involvement in transactions.[30]

In the Proposal, the Commission states that "Congress provided a broad definition of the term exchange, permitting the Commission to apply the definition flexibly as the securities markets evolve over time."[31] However, the Proposal does not simply expand the definition of exchange to fill "loopholes" which were created "by slight variations in the method of doing business," as Congress originally contemplated.[32] Rather, the Proposal would radically expand the definition of "exchange" to regulate tools and applications that were previously understood, including by the Commission itself, to fall outside of the Commission's exchange registration framework.[33]

In this regard, the Commission has previously expressed concern about an overly broad definition of an exchange, and has appropriately noted that "a broad interpretation [of exchange] would place 'evolving [alternative] trading systems within the "strait jacket" of exchange regulation, thus stifling innovation.'[34] As further discussed in Section II of this letter, the Proposal stands to threaten or eliminate the development in the U.S. of important innovations within communication and software, potentially including but not limited to DeFi protocols. The Commission has also previously expressed concern that "an expansive definition of the term 'exchange' would force a non-member, for-profit, proprietary trading system into a regulatory scheme for which it is ill-suited." Here, the Proposal could be interpreted as trying to impose the existing regulatory model that requires centralized control onto new financial

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30 *See* Loffa Interactive Corp, Inc., SEC No-Action Letter (Sept. 12, 2003). *See also Board of Trade of City of Chicago* v. *SEC*, 923 F.2d 1270, 1271 (7th Cir. 1991) (finding that the Delta system is not "what is generally understood by the term stock exchange" since it lacks a trading floor and market specialists that enhance the liquidity of the exchange by using their own capital to trade against the market when the trading volume is light). *See also* PerfectData Corporation, SEC No-Action Letter (Aug. 5, 1996) (finding that the systems provider was not required to register as a securities exchange since its services were limited to certain information-providing services and any transactions that were executed occurred independent of its platform).

31 Proposal, at p. 15499.

32 *See* S. Rep. No. 792, 73rd Cong., 2d Sess. (1934).

33 *See* Evare LLC, SEC No-Action Letter (November 30, 1998) (finding that Evare, LLC, an online communication system linking professional money managers that would enable managers to obtain quotes from, and enter orders with broker-dealers, was not required to register as a broker-dealer in accordance with Section 15(b) of the Exchange Act). *See also* Broker-To-Broker Networks, Inc, SEC No-Action Letter (December 1, 2000) (finding that Broker-to-Broker Networks, Inc., an order delivery and messaging system for use by broker-dealers to communicate with each other and their respective settlement agents, did not need to register with the Commission as a broker dealer). *See also* Neptune Networks Ltd., SEC No-Action Letter (March 4, 2020) (finding that Neptune Networks Ltd., a fixed income data connectivity network, did not need to register as a broker-dealer).

34 *See* Securities Exchange Act Release No. 27611 (Jan. 12, 1990), 55 FR 1980, 1900 (Jan. 19, 1990).

infrastructure that relies on the decentralized use of open-source software. In the Commission's own words, the exchange registration regulatory scheme is "ill-suited" for this context.

DeFi protocols, due to their decentralized nature, also do not constitute an organization, association, or group under the Exchange Act. As further discussed in Section I.A of this letter, DeFi protocols run on permissionless blockchain-based ledgers, over which no entity or group has control. In fact, there is no connecting factor linking a DeFi protocol's users other than the protocol's and underlying network's code itself. As such, it is unclear who exactly the "group of persons" statutory requirement would cover as applied in the context of DeFi protocols.

In this regard, courts are reluctant to expand the interpretation of the "group of persons" requirement under the Exchange Act. In *Intercontinental Exchange, Inc.* v. *Securities and Exchange Commission*, the D.C. Circuit recently stated that "the term 'group of persons' remains murky, and vigilance is necessary to ensure the term is not stretched too far."[35] Furthermore, in determining whether a particular service provider constituted a "group of persons" under the Exchange Act, the D.C. Circuit focused in particular on whether the parties were close affiliates of each other and whether such parties were acting in concert.[36] Thus, developers and users of DeFi protocols would not qualify as a "group of persons" because the (a) developers have no ongoing relationship with either market participants or other financial providers and merely make tools available for parties to communicate and (b) users are acting independently of each other.

For these reasons, we think it is unambiguous that the "exchange" definition does not cover DeFi protocols or other parties who merely make available trading protocol technology without subsequent involvement in transactions. But even if the reach of the "exchange" definition was ambiguous, the sheer scope of the Proposal, as described above, would counsel strongly against the Commission's proposed interpretation. As the Supreme Court recently expressed: "We expect Congress to speak clearly when authorizing an agency to exercise powers of vast economic and political significance."[37] That is the kind of power the Commission would be assuming on its own under the Proposal, without Congress having granted it clear authority,, by subjecting such a wide range and large number of technology services and software developers to registration and a *de facto* ban on decentralized deployment of their services and software. It would be surprising indeed that Congress, having revisited the Exchange Act many times since its enactment in 1934, would have seen fit for the Commission to apply its 1934-era authority over traditional stock exchanges this broadly, and in contravention of longstanding Commission precedent of which we should presume Congress has been aware. Rather, for the

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35 *Intercontinental Exchange, Inc.* v. *Securities and Exchange Commission*, 24 F.4th 1013 (D.C. Cir. 2022).

36 *Id.*

37 *Alabama Association of Realtors v. Dept. of HHS,* 141 S.Ct. 2485, 2489 (2021) (per curiam) (citations omitted).

Commission to have such sweeping power, one would expect a clear "textual commitment of authority" considering that, as the Court has also explained, "Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes."[38]

IV. The Commission Has Not Conducted Adequate Economic Analysis as Required by the Exchange Act

Section 23(a)(2) of the Exchange Act requires the Commission to consider "the impact any such rule or regulation would have on competition" and states that the Commission "shall not adopt any such rule or regulation which would impose a burden on competition not necessary or appropriate."[39] Additionally, the Commission must include in any rule or regulation "the reasons for the Commission's ... determination that any burden on competition imposed by such rule or regulation is necessary or appropriate in furtherance of the purposes of this chapter."[40] Section 3(f) of the Exchange Act requires the Commission to consider whether the action will promote efficiency, competition, and capital formation.[41] The D.C. Circuit has viewed these provisions, together with the requirement under the Administrative Procedure Act ("**APA**") that Commission rulemaking be conducted "in accordance with law," as imposing on the Commission a "statutory obligation to determine as best it can the economic implications of the rule."[42] Similarly, the court has found certain Commission rules arbitrary and capricious because of the Commission's failure to adequately evaluate a proposed rule's economic impact.[43] Additionally, the Division of Risk, Strategy, and Financial Innovation and the Office of the General Counsel have recognized in their guidance that "high-quality economic analysis is an essential part of SEC rulemaking."[44]

The Proposal's cost-benefit analysis falls well short of the Commission's statutory duty and the Commission's own interpretation of its obligations. The Proposal's economic analysis is fundamentally flawed because it both fails to consider the negative consequences that

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38 *Whitman v. American Trucking Ass'ns*, 531 U.S. 457, 468 (2001).

39 *See* 15 U.S.C. 78w(a)(2).

40 *Id.*

41 *See* 15 U.S.C. 78(c)(f).

42 *Chamber of Commerce* v. *SEC*, 412 F.3d 122, 144–45 (D.C. Cir. 2005); *see also* Memorandum on the Current Guidance on Economic Analysis in SEC Rule Making to the Staff of the Rulewriting Divisions and Offices (Mar. 16, 2012).

43 *Chamber of Commerce*, 412 F.3d at 143; *see also Business Roundtable*, 647 F.3d at 1148 (finding that the Commission had failed "adequately to assess the economic effects of a new rule").

44 Memorandum on the Current Guidance on Economic Analysis in SEC Rule Making to the Staff of the Rulewriting Divisions and Offices (Mar. 16, 2012).

would result from the proposed expansion of exchange registration requirements and overestimates the potential benefits of requiring additional entities to register as an exchange or as a broker-dealer. Additionally, it is not possible for the public to provide meaningful cost-benefit feedback because the Commission's proposed expansion of the definition of an "exchange" is so broad that it is impossible to establish a meaningful limit on the platforms and tools that would be covered by the Proposal.

The Proposal significantly underestimates the number of entities that would be required to register, including those that could not, in practice, meet concomitant regulatory obligations designed for financial intermediaries. It thus fails to account for the true costs of the Proposal. The Proposal contemplates that only 139 additional entities would be classified as exchanges. However, as noted above, the proposed expansion of the definition of an exchange is so broad that almost any communication tool used in the securities industry could be argued to constitute a CPS subject to registration. As a result, the Proposal's cost-benefit analysis does not adequately address or consider the full effects of the Proposal.

Moreover, the Proposal focuses almost exclusively on a registrant's regulatory costs of compliance but fails to consider the costs of eliminating an important sector of the financial markets. The Proposal does not account for the fact that the Proposal would preclude the development in the U.S. of many software tools and applications, including, but not limited to, DeFi protocols. In addition, the Proposal fails to account for the resulting indirect costs on end users that will no longer have the same access to DeFi protocols and may have to revert to using traditional trading platforms.

The Proposal does not explain or account for the additional supervisory costs that would be required to oversee the additional entities that would now be classified as exchanges or broker-dealers. The Commission should carefully weigh these costs against the potential benefits of having such entities register as an exchange or as a broker-dealer.

Finally, the Commission itself acknowledges that it does not have the data to inform the Commission on certain economic effects and, as a result, the Commission is unable to quantify certain economic effects of the Proposal.[45] We agree. Given the significance of the Proposal and the potential far-reaching implications on financial markets and end-users, we respectfully submit that the Commission should wait until it has the data necessary to address the issues in a deliberate, comprehensive, and transparent way. The Commission cannot satisfy its rulemaking responsibilities without first giving commenters sufficient information to formulate their views.

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[45] Proposal, at p. 15618.

V. The Proposal Does Not Provide Fair and Sufficient Notice Under the Administrative Procedure Act

The APA requires federal agencies to provide notice and an opportunity to comment on regulatory proposals.[46] To satisfy the rulemaking requirements of Section 553 of the APA, an agency "must provide sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully." An agency must give "interested persons an opportunity to participate in the rule making" and the "affected party should have anticipated the agency's final course in light of the initial notice."[47] Integral to an agency's notice requirement under the APA "is its duty to identify and make available technical studies and data that it has employed in reaching the decisions to propose particular rules."[48]

The Proposal fails to provide sufficient notice of the proposed scope of the rule and fails to give notice of who would be affected by the Proposal. First, because the Proposal's cost-benefit analysis is insufficient under the Exchange Act, the Proposal does not provide affected parties with the necessary information to formulate their views. Second, the Proposal does not give adequate guidance on the parties that would be affected by the rule because the amendments to the definition of exchange are overly broad and could potentially encapsulate almost any tool that allows parties to communicate a trading interest.

Additionally, agencies must provide affected parties "enough time with enough information to comment and for the agency to consider and respond to the comments."[49] The courts and Congress agree that public comment periods must be commensurate with the length, complexity, and significance of rulemakings. Here, the Commission has provided a 30-day comment period to respond to a 591-page proposal that, if adopted, would radically transform the regulation of financial markets and their support structure. Given the ambiguous and unclear application of the Proposal, as noted above, and its extraordinary breadth, a 30-day comment period is simply too short for most affected parties to undertake the kind of analysis that is required to meaningfully respond. Further, since the Commission has issued a large number of complicated proposals over the past several months, which in many cases impact the same categories of market participants, the 30-day comment period is clearly insufficient time for

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46 5 U.S.C. § 553(b).

47 *Covad Communications* v. *FCC*, 450 F.3d 528, 548 (D.C. Cir. 2006).

48 *Kern Cty. Farm Bureau* v. *Allen*, 450 F 3d 1072, 1076 (9th Cir. 2006) (internal citation omitted).

49 *Prometheus Radio Project* v. *F.C.C.*, 652 F.3d 431, 450 (3d Cir. 2011); *see also*, *e.g.*, *Florida Power & Light Co.* v. *U.S.*, 846 F.2d 765, 771 (D.C. Cir. 1988) (affirming that the APA's notice provisions require agencies "not only [to] give adequate time for comments, but also must provide sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully").

commentators to interpret and digest the effects of this Proposal not only on existing rules, but also on other rules that have recently been proposed.[50]

Moreover, the revised definition of an exchange in the Proposal is so ambiguous and vague that it deprives market participants of fair notice about what the Proposal requires. The void-for-vagueness doctrine dictates that unduly uncertain laws, whether criminal or civil, violate due process and cannot be enforced.[51] As Justice Gorsuch recently explained, when people are "[left] in the dark about what the law demands," it "invites the exercise of arbitrary power" by "allowing prosecutors and courts" to simply "make [the law] up."[52] The void-for-vagueness doctrine has particular salience when applied to government action that affects First Amendment rights, as this Proposal does, an aspect discussed further in Section VI.[53] As noted above, the Proposal's revised definition of exchange may unintentionally encompass certain entities that the Commission may not have intended to regulate, including DeFi protocols. The revised definition of exchange has no real limiting factor that would enable market participants to predict which communication system or online platform will be covered by the Proposal and the Commission does not provide any guidance to assist participants in determining who will be covered by the new rule. Additionally, market participants can no longer rely on numerous Commission no-action letters that repeatedly held that such support entities are not subject to exchange registration or broker-dealer requirements, despite the fact that the Commission does not reference these letters or provide guidance on their continued applicability.[54] As a result, the Proposal fails to provide fair notice to market participants as to whom the Proposal will affect.

VI. The Proposal Raises First Amendment Concerns

By expanding the definition of "exchange" to encompass even those software applications that simply facilitate communication, the Commission will impose unconstitutional limits that are prohibited under the First Amendment to the Constitution. Though courts have not developed a single, unified approach to the status of software code under the First Amendment, they have been inclined to view code as protected when it is intended to be

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50 *See* Release No.34-94524; File No. S7-12-22. *See also* Commissioner Hester M. Peirce's Statement on the Proposal to Further Define "As a Part of a Regular Business" in the Definition of Dealer and Government Securities Dealer (Mar. 28, 2022) (noting that the Commission has issued a large number of extremely complicated rules over the past several months).

51 *See Sessions* v. *Dimaya*, 138 S. Ct. 1204, 1209 (2018).

52 *Id.* at 1223-24 (Gorsuch, J., concurring in judgment).

53 *See, e.g., Grayned* v. *City of Rockford*, 408 U.S. 104, 109 (1972) ("[W]here a vague statute abuts upon sensitive areas of basic First Amendment freedoms, it operates to inhibit the exercise of those freedoms. Uncertain meanings inevitably lead citizens to steer far wider of the unlawful zone . . . than if the boundaries of the forbidden areas were clearly marked.") (internal citations omitted).

54 *See* Evare LLC, Broker-to-Broker Networks, Inc., Neptune Networks Ltd., *supra* note 33.

interpreted by a person, instead of a computer, especially if that code is expressing an idea and facilitates user interaction. For example, the U.S. Court of Appeals for the Sixth Circuit concluded in *Junger* v. *Daley* that the code at issue was protected because it was an "expressive means for the exchange of information and ideas."[55] The expression of even technical information warrants First Amendment protection,[56] and the U.S. District Court for the District of Columbia has held that instructive, communicative code appended to purely functional code warrants First Amendment scrutiny for the entire communication at issue.[57]

The Proposal would impose significant burdens on various categories of code that courts have viewed as more deserving of First Amendment protection. The regulations target technology that "makes available established, non-discretionary methods ... *under which buyers and sellers can interact and agree* to the terms of a trade." This kind of technology provides "expressive means for the exchange of information and ideas" concerning markets and facilitates dynamic user engagement.[58] Moreover, a DeFi protocol's community governance structure requires public interaction with the protocol's core open-source code in order to decide how to update and evolve it. That public involvement, in turn, means that such code is more likely to merit First Amendment protection.

The Commission should, in interpreting the scope of its registration categories, seek to avoid potential First Amendment issues. For example, in *Lowe* v. *S.E.C.*,[59] the Supreme Court adopted a broad construction of a statutory exception from registration under the Investment Advisers Act for publishers, in order to avoid such issues. Although the *Lowe* decision was interpreting a different statute administered by the Commission, its reasoning is equally applicable to the Exchange Act and the Commission's action under the Proposal. Therefore, the Commission must exercise greater caution to avoid the First Amendment problems that would stem from inappropriate expansion of the registration requirements for exchanges and ATSs.

Recognizing that the types of code at issue here enjoy First Amendment protections, courts have previously applied intermediate scrutiny to evaluate regulations of or restrictions on the code.[60] To survive intermediate scrutiny, a regulation must advance a substantial governmental interest that is unrelated to the suppression of free expression and

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55 209 F.3d 481, 485 (6th Cir. 2000).

56 *Id.* at 447.

57 *Karn* v. *U.S. Dep't of State*, 925 F. Supp. 1, 9 (D.D.C. 1996).

58 *Corley,* 273 F.3d at 449.

59 472 U.S. 181 (1985).

60 *Id.* at 442. *Accord 321 Studios* v. *Metro Goldwyn Mayer Studios, Inc.*, 307 F. Supp. 2d 1085, 1100 (N.D. Cal. 2004); *Green* v. *U.S. Dep't of Just.*, 392 F. Supp. 3d 68, 91 (D.D.C. 2019).

must not burden substantially more speech than is necessary to further that interest.[61] We respectfully submit that the Proposal's extraordinary breadth, burdening expression far beyond the execution of a trade, indicates that the Proposal burdens substantially more speech than is necessary, especially when considering the alternative approaches discussed in Section VIII of this letter. We accordingly suggest that the Commission adopt these alternative approaches and revise its Proposal to construe more narrowly the definition of exchange to avoid any constitutional complications.

VII. Recommended Alternative Approaches

The Commission has articulated a number of laudable goals in this Proposal. These proposed amendments admirably aim to protect confidential trading information from being employed for unapproved and unrelated uses by platform operators and other users or customers; to create operational transparency through disclosures on Form ATS-N; to ensure fair access to key financial entities and technology; and to ensure that the benefits of SEC and FINRA oversight apply not only to the traditional financial system but also to new market situations as well.

Given the integral and growing role that DeFi protocols play in the real economy, the Commission's efforts to accomplish these goals must be tailored to avoid imposing undue costs on DeFi protocols and other software tools, restricting the operation of markets, or unduly curtailing financial innovation that benefits investors. As noted above, the Commission's proposed approach would result in significant costs to service providers that could result in a number of market participants exiting the market or significantly curtailing their innovative operations. That in turn would curtail the benefits of innovation such as increased liquidity, efficiency, transparency, accessibility, and composability, among many others. To avoid those consequences, the Commission should consider more appropriately tailored ways of achieving its goals without placing undue burdens on market participants.

We respectfully submit that the proposed amendments fail to adopt such an approach. The Proposal applies a one-size-fits-all approach to protocols that operate in categorically different ways from the traditional financial service providers to which the approach is tailored. Instead, we suggest that the Commission distinguish DeFi protocols from the traditional financial intermediaries based on their unique functionality and the extent to which these protocols, by their very nature, already protect investors, the market, and the public, and the unique risks they may present. The Commission's approach would benefit from incorporating workable practices that DeFi protocols have already begun to reflect. A non-exhaustive list of alternative approaches and requirements might include:

- Equal access to, and protection of, order and transaction information;

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61 *See Green*, 394 F. Supp. 3d at 94.

- Full public disclosure of the operational mechanics, including the code, governing interaction of trading interest and executions;
- Regulation of development and launch mechanics, such as standards for code review, audits, and testing, as well as support for "guarded" launches;
- Disclosure of token economics, earnings, and fees; equity financings, prior token sales, and related commitments; and governance rights and processes;
- Objective standards for access to protocols, such as through publicly available code; and
- Deployment of the protocol on a permissionless blockchain network, with consensus rules that cannot be modified by a single person, entity, or coordinated group of persons.

More generally, an "activity-based," as opposed to "entity-based," regulatory framework would better govern the hyper-specialized and decentralized nature of DeFi protocols. Regulation pursuant to an activity-based framework would better govern an industry where the makeup and characteristics of the participants are undergoing rapid transformation.

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We appreciate the opportunity to provide our comments to the Commission regarding the proposed amendments to Rule 3b-16, and we would be pleased to meet with the Commission or its staff to discuss our comments. If the staff has questions or comments, please do not hesitate to contact the undersigned, or David J. Gilberg (212-558-4680), James M. McDonald (212-558-3030), or Colin D. Lloyd (212-558-3040) of Sullivan & Cromwell LLP, outside counsel to DEF.

Respectfully submitted,

Miller Whitehouse-Levine
Policy Director

cc: The Hon. Gary Gensler, SEC Chairman
The Hon. Hester M. Peirce, SEC Commissioner
The Hon. Allison Herren Lee, SEC Commissioner
The Hon. Caroline A. Crenshaw, SEC Commissioner